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MONTHLY PROGRESS REPORT NO. 20
for the period October 1-31, 1977
to
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

1860 Lincoln St., Suite 900
Denver, CO 80203

Contract No. 68-01-1946

Utah U-a/U-b Tract

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aeromet inc.

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1860 Lincoln St., Suite 900
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by

AEROMET, INC.
P.O. Box 45447
Tulsa, OK 74145

Utah U-a/U-b Tract

1.0 INTRODUCTION

Low level temperature and wind data were collected for October, 1977 at Bonanza, Utah. The data were collected using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were scheduled for ½ hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from -50°C to +50°C. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 . . . . The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.

2.0 DATA SUMMARY

2.1 Utah U-a/U-b Bonanza Field Summary

The performance of the new observer in Bonanza was less than desired with only 77% of the scheduled pilot balloon releases being attempted resulting in 74% recovery of the temperature data and 67% recovery of the wind data. High winds contributed to a 3% loss in temperature and wind data while an additional 3% loss of wind data resulted from equipment problems. The remaining temperature and wind data losses were left unexplained by the observer.

Starting October 15 and continuing to the end of the month the balloon releases are a day late.

The user should note that the change from Mountain Daylight Time back to Mountain Standard Time (MST) occurred on October 30. All times given in the report are Mountain Standard Time.

2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release ½ hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analyses 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.

3.0 DATA PROCESSING

3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind data are also written to magnetic tape.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and recorded on magnetic tape. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G. C., 1974: "Climatological Data on Atmospheric Stability in the United States". Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the $\Delta T/100m$ criterion is met but the wind speed criterion is not met, then the wind data are checked

STABILITY CLASS	ΔT (°C/100m)	WIND SPEED
A	<-1.9	≤ 2
B	-1.9 - -1.7	≤ 5
C	-1.7 - -1.5	≤ 6
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	≤ 5
F	>1.5	≤ 3

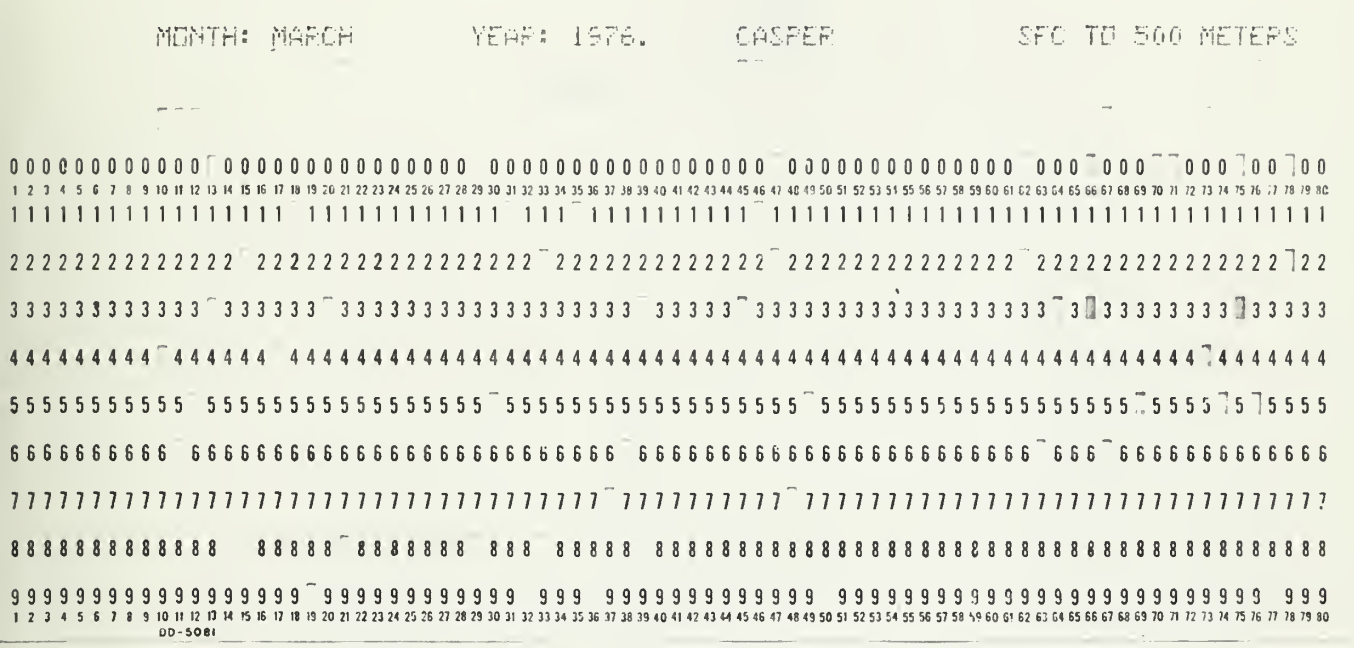
against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example, if the $\Delta T/100m$ value is

1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a ΔT value of 1.7°C/100 m and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.

3.2 Punched Output

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below, and the



punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17

PILOT BALLOON SUMMARY
Utah U-a/U-b Bonanza
October, 1977

October 2	0820	Temperature values were interpolated over the intervals from 5 to 7 1/4 minutes and 14 to 16 1/2 minutes.
	1355	Temperature values were interpolated over the interval from 1/4 to 5 1/2 minutes.
October 4	0726	Temperature values were interpolated over the interval from 27 1/4 to 29 3/4 minutes.
	1408	
October 6	0648	
	1403	
October 8	0730	Temperature values were interpolated over the interval from 23 3/4 to 27 3/4 minutes. No wind data due to equipment problems.
	1404	Temperature values were interpolated over the interval from 6 3/4 to 14 1/2 minutes
October 10	MORN	Observer missed launch.
	1435	
October 12	0730	
	1359	Temperature values were interpolated over the interval from 1/2 to 4 3/4 minutes.
October 14	MORN	Observer missed launch.
	AFTN	Observer missed launch.
October 15	0730	
	1415	

AVERAGE MIXING LAYER HEIGHT

Utah U-a/U-b Bonanza

October, 1977

HEIGHT IN METERS

	MORNING			AFTERNOON		
DATE	0°	+5°	+10°	0°	+5°	+10°
2	sfc	250m	650m	1600m	N/D	N/D
4	50m	150m	450m	150m	3500m	N/D
6	sfc	400m	1250m	250m	3050m	4300m
8	sfc	100m	2000m	1350m	2400m	N/D
10				50m	3000m	3700m
12	sfc	150m	500m	N/D	N/D	N/D
14						
15	sfc	150m	600m	100m	900m	2050m
17	sfc	300m	800m	250m	1400m	4150m
19						
21	50m	1050m	4000m	50m	2800m	N/D
23						
25						
27	sfc	150m	550m	350m	2700m	N/D
29	sfc	250m	N/D			
31	150m	3500m	N/D	1100m	N/D	N/D

CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Bonanza

October, 1977

DATE	MORNING	AFTERNOON
2	scattered	clear
4	scattered	scattered
6	overcast	overcast
8	clear	clear
10		scattered
12	clear	clear
14		
15	clear	clear
17	clear	clear
19		
21	overcast	clear
23		
25		
27	clear	clear
29	overcast	
31	overcast	overcast

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5687

DATE 10/02/77 TIME 08 20MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	648.	0.69	0.0

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5677

DATE 10/02/77 TIME 13 55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.37
100.	250.	-0.83
250.	500.	-1.02
500.	750.	-0.99
750.	1000.	-1.02
1000.	1500.	-0.98

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/04/77 TIME 07 26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	571.	1.17	-1.23

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5688

DATE 10/04/77 TIME 14 08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
156.	195.	1.17	-1.08

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/06/77 TIME 06 48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	343.	0.35	0.0

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5681

DATE 10/06/77 TIME 14 03MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	76.	0.0	-0.93

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/08/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	114.	4.32	0.0

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5679

DATE 10/08/77 TIME 14 04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
297.	335.	0.0	-1.45

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/10/77 TIME 14 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	76.	3.62	-0.73

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5686

DATE 10/12/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	571.	0.91	0.0

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

DATE 10/12/77 TIME 13 59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

DATE 10/12/77 TIME 13 59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1257.	1295.	0.0	-1.15

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	495.	1.06	0.0

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 14 15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
419.	457.	0.0	-0.65

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5692

DATE 10/17/77 TIME 08 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	762.	0.37	0.0

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/17/77 TIME 13 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
279.	431.	0.12	-0.94

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5790

DATE 10/21/77 TIME 07 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5790

DATE 10/21/77 TIME 07 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/21/77 TIME 13 56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
642.	718.	0.25	-0.87

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/27/77 TIME 08 06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	610.	0.81	0.0

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

DATE 10/27/77 TIME 15 07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
169.	207.	0.46	-1.30

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5736

DATE 10/29/77 TIME 07 45MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	267.	0.94	0.0

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5727

DATE 10/31/77 TIME 07 46MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5727

DATE 10/31/77 TIME 07 46MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
114.	190.	0.13	-1.25

****

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5734

DATE 10/31/77 TIME 14 09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1095.	1171.	0.64	-1.00

MONTH OCTOBER YEAR 1977 UTAH UAUB ELEV 1676 METERS

HOLZWORTH S CLASSIFICATION SCHEME FOR INVERSIONS
MODIFIED TO SHOW TOTAL NUMBER INSTEAD OF PERCENT

	INVERSION BASE HEIGHT (M)									
THICKNESS (METERS)	SFC	1-100	101-250	251-500	501-750	751-1000	1000-1500	1501-2000	2001-2500	2501-3000	TOTAL
1 - 100	1	2	3	2	1	0	2	0	0	0	11
101 - 250	1	0	0	1	0	0	0	0	0	0	2
251 - 500	3	0	0	0	0	0	0	0	0	0	3
501 - 750	3	1	0	0	0	0	0	0	0	0	4
751 - 1000	1	0	0	0	0	0	0	0	0	0	1
1001 - 1500	0	0	0	0	0	0	0	0	0	0	0
> 1500	0	0	0	0	0	0	0	0	0	0	0
INV TOTAL	9	3	3	3	1	0	2	0	0	0	21
DT/DZ 5		0	0	0	0	0	0	0	0	0	0
FROM INV 4		1	0	1	0	0	0	0	0	0	2
BASE 3		1	1	1	1	0	2	0	0	0	6
TO 2		1	2	1	0	0	0	0	0	0	4
SFC 1		0	0	0	0	0	0	0	0	0	0
NO INV TOT		1	1	1	1	1	1	DT/DZ (DEG C)/100M			
DT/DZ FOR 5		0	0	0	0	0	0	5= 0.00 TO -0.40			
SAME 4		0	0	0	0	0	0	4=-0.41 TO -0.80			
LAYERS 3		0	1	1	1	1	1	3=-0.81 TO -1.20			
AS INV 2		1	0	0	0	0	0	2=-1.21 TO -1.60			
BASE 1		0	0	0	0	0	0	1=<-1.60			

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE B STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.08	0.0	0.0	0.0	0.0	0.0	0.9	0.08
ENE	0.0	0.0	0.08	0.0	0.0	0.0	7.7	0.08
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.08	0.0	0.0	0.0	8.4	0.08
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.08	0.08	0.0	0.0	0.0	0.0	3.2	0.17
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.08	0.08	0.0	0.0	0.0	0.0	3.6	0.17
W	0.0	0.08	0.0	0.0	0.0	0.0	4.1	0.08
WNW	0.08	0.0	0.0	0.0	0.0	0.0	0.9	0.08
NW	0.08	0.0	0.0	0.0	0.0	0.0	2.3	0.08
NNW	0.17	0.0	0.0	0.0	0.0	0.0	1.6	0.17
AVG SPEED	1.8	4.2	8.0	0.0	0.0	0.0		0.0
TOTAL	0.58	0.25	0.17	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.60

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.13	0.13	0.0	0.0	0.0	0.0	2.8	0.25
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.13	0.0	0.0	0.0	0.0	0.0	1.7	0.13
SE	0.13	0.0	0.0	0.0	0.0	0.0	0.7	0.13
SSE	0.0	0.13	0.0	0.0	0.0	0.0	3.2	0.13
S	0.13	0.0	0.0	0.0	0.0	0.0	1.9	0.13
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.13	0.0	0.0	0.0	0.0	0.0	1.4	0.13
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.13	0.0	0.0	0.0	0.0	0.0	2.2	0.13
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.6	3.6	0.0	0.0	0.0	0.0		0.0
TOTAL	0.75	0.25	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.40

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH OCTOBER YEAR 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.05	0.0	0.0	0.0	0.0	0.0	0.9	0.05
ENE	0.05	0.05	0.05	0.0	0.0	0.0	4.4	0.15
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.05	0.0	0.0	0.0	0.0	0.0	1.7	0.05
SE	0.05	0.0	0.0	0.0	0.0	0.0	0.7	0.05
SSE	0.0	0.05	0.05	0.0	0.0	0.0	5.8	0.10
S	0.05	0.0	0.0	0.0	0.0	0.0	1.9	0.05
SSW	0.05	0.05	0.0	0.0	0.0	0.0	3.2	0.10
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.10	0.05	0.0	0.0	0.0	0.0	2.8	0.15
W	0.0	0.05	0.0	0.0	0.0	0.0	4.1	0.05
WNW	0.10	0.0	0.0	0.0	0.0	0.0	1.6	0.10
NW	0.05	0.0	0.0	0.0	0.0	0.0	2.3	0.05
NNW	0.10	0.0	0.0	0.0	0.0	0.0	1.6	0.10
AVG SPEED	1.7	4.0	8.0	0.0	0.0	0.0		0.0
TOTAL	0.65	0.25	0.10	0.0	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 22 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5687

DATE 10/02/77 TIME 08 20MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.58		0.0		2.1	330.
1.0	150	1826	9.22	3.64	2.75	5.68	4.4	311.
2.0	300	1976	8.39	-0.83	-1.28	1.64	1.6	283.
2.1	324.	2000.	8.21	0.00	0.0	2.93	1.6	286.
3.3	500	2176	8.38	-0.01	3.29	6.22	1.1	336.
5.4	824.	?2500.	8.21	-0.17	-1.84	1.09	3.1	26.
8.7	1324.	3000.	4.92	-2.81	-1.67	1.26	4.0	304.
15.2	2324.	4000.	2.93	-2.46	0.0	2.93		
21.5	3324.	5000.	-2.73	-5.66	-1.91	1.02		
27.7	4324.	6000.	-9.67	-6.95	1.16	4.09		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5687

DATE 10/02/77 TIME 08 20MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	1.0	-1.8	2.1	330.
0.5	76.	1752.	4.0	-0.7	4.1	280.
1.0	152.	1828.	3.3	-3.0	4.4	312.
1.5	229.	1905.	2.4	1.9	3.0	231.
2.0	305.	1981.	1.5	-0.4	1.6	286.
2.5	381.	2057.	1.8	-0.5	1.9	285.
3.0	457.	2133.	0.8	-0.7	1.1	311.
3.5	533.	2209.	0.1	-1.1	1.1	356.
4.0	610.	2286.	0.1	-0.6	0.6	346.
4.5	686.	2362.	0.3	-1.7	1.7	349.
5.0	766.	2442.	-1.1	-3.4	3.5	18.
5.5	842.	2518.	-1.5	-2.6	3.0	29.
6.0	918.	2594.	0.9	0.4	1.0	246.
6.5	994.	2670.	1.2	-1.1	1.6	311.
7.0	1070.	2746.	3.2	-1.2	3.4	290.
7.5	1147.	2823.	3.3	0.0	3.3	269.
8.0	1223.	2899.	2.7	-0.9	2.8	288.
8.5	1299.	2975.	3.7	-2.0	4.1	298.
9.0	1375.	3051.	2.5	-2.6	3.6	317.
9.5	1451.	3127.	3.5	-3.3	4.8	313.
10.0	1528.	3204.	4.8	-2.5	5.4	297.
10.5	1604.	3280.	4.8	-0.6	4.9	277.
11.0	1680.	3356.	4.1	-1.8	4.5	293.
11.5	1756.	3432.	3.5	-8.3	9.0	337.
12.0	1832.	3508.	1.5	-6.9	7.1	348.
12.5	1909.	3585.	1.2	-9.7	9.7	353.
13.0	1985.	3661.	-1.1	-10.0	10.0	6.
13.5	2061.	3737.	-1.8	-6.8	7.0	15.
14.0	2137.	3813.	1.8	-7.0	7.2	345.
14.5	2213.	3889.	-1.1	-9.2	9.3	7.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5677

DATE 10/02/77 TIME 13 55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.74		0.0		1.0	90.
0.9	? 150	1826	13.93	-1.80	-2.69	0.24	0.8	51.
1.9	? 300	1976	12.40	-1.54	-3.61	-0.68	1.2	48.
2.0	324.	?2000.	11.96	-0.44	-3.62	-0.70	1.3	64.
3.0	? 500	2176	10.53	-1.43	-3.64	-0.71	1.3	332.
4.8	824.	?2500.	6.92	-3.61	-3.69	-0.76	8.9	290.
7.8	1324.	3000.	2.46	-4.46	-3.38	-0.45	7.5	292.
13.8	2324.	4000.	-4.95	-7.41	-4.99	-2.06		
19.4	3324.	5000.	-13.14	-8.20	-2.35	0.58		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5677

DATE 10/02/77 TIME 13 55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-1.0	-0.0	1.0	90.
0.5	76.	1752.	-0.6	-0.7	1.0	40.
1.0	160.	1836.	-0.6	-0.5	0.8	53.
1.5	236.	1912.	-0.0	-0.9	0.9	3.
2.0	321.	1997.	-1.2	-0.6	1.3	63.
2.5	413.	2089.	-1.3	-0.1	1.3	83.
3.0	505.	2181.	0.3	-1.2	1.3	346.
3.5	597.	2273.	0.3	-0.7	0.8	335.
4.0	688.	2364.	0.2	-1.2	1.2	351.
4.5	774.	2450.	7.7	-3.4	8.4	293.
5.0	863.	2539.	8.9	-2.6	9.3	287.
5.5	956.	2632.	10.4	0.2	10.4	269.
6.0	1034.	2710.	10.3	-2.4	10.6	283.
6.5	1111.	2787.	8.2	-5.1	9.7	302.
7.0	1196.	2872.	11.5	-2.3	11.7	281.
7.5	1284.	2960.	7.2	-1.9	7.5	285.
8.0	1360.	3036.	6.7	-3.7	7.6	299.
8.5	1455.	3131.	8.9	-7.4	11.5	310.
9.0	1541.	3217.	13.8	-9.5	16.8	304.
9.5	1618.	3294.	10.7	-8.2	13.5	308.
10.0	1694.	3370.	8.3	-9.2	12.4	318.
10.5	1770.	3446.	4.3	-7.6	8.8	330.
11.0	1846.	3522.	4.4	-7.7	8.8	330.
11.5	1922.	3598.	7.4	-12.6	14.6	330.
12.0	1999.	3675.	11.1	-9.1	14.4	309.
12.5	2075.	3751.	3.4	-12.3	12.8	344.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/04/77 TIME 07 26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.34		0.0		1.0	160.
0.3	* 38	1714	5.87		0.0	0.0		
0.8	* 114	1790	9.51		8.27	11.20		
1.0	150	1826	9.51	3.17	3.64	6.57	1.7	216.
2.0	300	1976	11.27	1.76	1.27	4.20	6.8	66.
2.1	324.	2000.	11.63	0.17	0.91	3.83	5.9	73.
3.3	500	2176	12.09	0.65	0.54	3.47	1.0	102.
5.4	824.	2500.	11.27	-0.82	-0.91	2.02	4.5	196.
8.6	1324.	3000.	7.46	-3.81	-2.76	0.17	M	M
15.1	2324.	4000.	-1.28	-8.74	-1.90	1.03		
21.0	3324.	5000.	-10.17	-8.89	-3.31	-0.38		
27.4	4324.	6000.	-16.94	-6.78	-0.99	1.94		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/04/77 TIME 07 26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.4	1.0	1.0	160.
0.5	76.	1752.	0.5	1.0	1.2	205.
1.0	152.	1828.	1.0	1.4	1.7	216.
1.5	229.	1905.	-3.7	2.3	4.4	122.
2.0	305.	1981.	-6.1	-3.3	6.9	62.
2.5	381.	2057.	-2.7	0.8	2.8	106.
3.0	457.	2133.	-0.6	0.3	0.7	116.
3.5	533.	2209.	-1.2	0.0	1.2	92.
4.0	610.	2286.	-1.8	0.0	1.8	91.
4.5	686.	2362.	0.5	3.8	3.8	187.
5.0	762.	2438.	4.8	6.1	7.7	218.
5.5	838.	2514.	0.7	3.7	3.8	190.
6.0	914.	2590.	1.6	4.2	4.5	201.
6.5	991.	2667.	7.4	2.5	7.8	251.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5688

DATE 10/04/77 TIME 14 08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		20.38		0.0		2.1	160.
1.0	150.	1826.	18.71	-1.67	-1.75	1.18	2.7	235.
1.9	300.	1976.	18.44	-0.28	-0.88	2.05	4.7	209.
2.1	324.	2000.	18.25	-0.17	-0.70	2.23	4.8	204.
3.3	500.	2176.	17.73	-0.53	-2.82	0.11	4.7	187.
5.4	824.	2500.	15.28	-2.44	-2.49	0.43	8.9	165.
8.6	1324.	3000.	10.90	-3.83	-4.18	-1.25	11.7	149.
13.7	2324.	4000.	1.60	-9.86	-4.33	-1.40		
19.2	3324.	5000.	-6.72	-8.32	-0.97	1.96		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5688

DATE 10/04/77 TIME 14 08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.7	1.9	2.1	160.
0.5	76.	1752.	1.8	0.1	1.8	265.
1.0	156.	1832.	2.2	1.7	2.8	232.
1.5	233.	1909.	2.7	3.1	4.1	221.
2.0	309.	1985.	2.2	4.3	4.8	207.
2.5	385.	2061.	0.8	4.5	4.6	190.
3.0	461.	2137.	0.7	4.0	4.0	190.
3.5	537.	2213.	0.5	5.4	5.4	185.
4.0	614.	2290.	0.3	6.4	6.4	183.
4.5	690.	2366.	5.6	6.2	8.3	222.
5.0	766.	2442.	-1.4	8.1	8.2	170.
5.5	842.	2518.	-2.6	8.8	9.2	164.
6.0	918.	2594.	-7.7	10.8	13.3	144.
6.5	995.	2671.	-3.0	11.0	11.4	165.
7.0	1071.	2747.	-3.8	9.6	10.4	159.
7.5	1147.	2823.	-5.9	9.3	11.0	148.
8.0	1223.	2899.	-2.7	10.7	11.0	166.
8.5	1299.	2975.	-6.6	9.9	11.9	146.
9.0	1384.	3060.	-4.9	10.1	11.2	154.
9.5	1483.	3159.	-2.7	12.5	12.8	168.
10.0	1566.	3242.	-5.1	12.1	13.1	157.
10.5	1676.	3352.	-5.0	14.6	15.4	161.
11.0	1797.	3473.	-9.4	13.5	16.4	145.
11.5	1881.	3557.	-5.5	11.0	12.3	153.
12.0	1962.	3638.	-2.3	13.1	13.3	170.
12.5	2056.	3732.	-8.4	10.8	13.7	142.
13.0	2170.	3846.	-1.8	15.1	15.2	173.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/06/77 TIME 06 48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.14		0.0		1.0	330.
1.0	150	1826	9.70	0.56	1.28	4.20	3.5	83.
2.0	300	1976	10.34	0.65	-0.36	2.56	1.9	13.
2.1	324.	2000.	10.07	0.00	-0.55	2.38	1.8	94.
3.3	500	2176	9.62	-0.72	-1.09	1.83	0.5	67.
5.4	824.	2500.	9.23	-0.39	-1.28	1.65	2.8	137.
8.7	1324.	3000.	6.43	-2.52	-1.66	1.26	10.1	154.
15.2	2324.	4000.	-0.51	-7.22	-2.84	0.09		
21.6	3324.	5000.	-10.07	-9.56	-2.92	0.01		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/06/77 TIME 06 48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.5	-0.9	1.0	330.
0.5	76.	1752.	-4.5	0.7	4.6	99.
1.0	152.	1828.	-3.4	-0.4	3.5	83.
1.5	229.	1905.	-1.0	-1.6	1.9	32.
2.0	305.	1981.	-0.4	-1.9	1.9	12.
2.5	381.	2057.	0.6	-1.4	1.6	337.
3.0	457.	2133.	-0.1	0.1	0.1	126.
3.5	533.	2209.	-0.3	-0.7	0.7	21.
4.0	610.	2286.	-1.7	0.7	1.8	112.
4.5	686.	2362.	-0.5	1.5	1.6	160.
5.0	762.	2438.	-0.5	2.0	2.1	167.
5.5	838.	2514.	-2.3	1.9	2.9	130.
6.0	914.	2590.	-3.6	1.9	4.1	118.
6.5	991.	2667.	-4.2	3.0	5.2	126.
7.0	1067.	2743.	-2.3	3.5	4.2	147.
7.5	1143.	2819.	-2.2	4.4	4.9	153.
8.0	1219.	2895.	-4.0	8.3	9.2	154.
8.5	1295.	2971.	-3.8	7.6	8.5	153.
9.0	1372.	3048.	-5.3	11.6	12.7	156.
9.5	1448.	3124.	-1.1	11.1	11.1	174.
10.0	1524.	3200.	-3.9	14.6	15.1	165.
10.5	1600.	3276.	-4.2	12.5	13.2	161.
11.0	1676.	3352.	-2.4	12.6	12.8	169.
11.5	1753.	3429.	-2.3	12.2	12.5	169.
12.0	1829.	3505.	-2.5	12.4	12.6	168.
12.5	1905.	3581.	-2.9	12.2	12.5	167.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5681

DATE 10/06/77 TIME 14 03MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		19.50		0.0		9.0	45.
1.0	150	1826	18.34	-1.15	-3.16	-0.23	7.8	177.
2.0	300	1976	16.92	-1.43	-2.12	0.81	6.7	163.
2.1	324.	2000.	16.46	-0.43	-2.66	0.27	7.3	164.
3.2	500	2176	15.02	-1.47	-3.75	-0.82	10.4	163.
5.0	824.	2500.	11.91	-3.11	-4.16	-1.23	6.5	146.
6.8	1324.	3000.	5.87	-5.99	-6.84	-3.92	11.6	149.
11.9	2324.	4000.	-1.76	-7.68	-3.80	-0.88	M	M
16.0	*3016	4692	-8.10		4.04	6.97		
16.8	*3131	4807	-4.19		5.76	8.69		
18.0	3324.	5000.	-4.77	-3.01	-1.34	1.59		
24.1	4324.	6000.	-12.84	-8.08	-1.96	0.97		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5681

DATE 10/06/77 TIME 14 03MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-6.4	-6.4	9.0	45.
0.5	76.	1752.	-0.5	7.6	7.6	176.
1.0	152.	1828.	-0.4	7.8	7.8	177.
1.5	231.	1907.	-2.5	6.6	7.1	159.
2.0	307.	1983.	-1.9	6.3	6.6	163.
2.5	383.	2059.	-2.3	9.2	9.5	166.
3.0	459.	2135.	-4.3	11.0	11.8	159.
3.5	554.	2230.	-1.6	8.4	8.5	169.
4.0	652.	2328.	-0.8	2.3	2.4	162.
4.5	741.	2417.	-4.3	2.6	5.1	121.
5.0	826.	2502.	-3.6	5.5	6.5	147.
5.5	943.	2619.	-7.4	-1.8	7.7	76.
6.0	1098.	2774.	-1.6	6.5	6.6	166.
6.5	1237.	2913.	-5.0	9.6	10.8	152.
7.0	1392.	3068.	-6.8	10.2	12.2	146.
7.5	1554.	3230.	-1.8	12.7	12.8	172.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/08/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.05		0.0		3.9	330.
0.8	* 114	1790	10.99		3.10	6.03		
1.0	150	1826	10.44	4.39	-0.36	2.56	M	M
2.0	300	1976	9.60	-0.84	-1.83	1.10	M	M
2.1	324.	2000.	9.34	-0.26	-2.01	0.92	M	M
3.3	500	2176	7.76	-1.58	-2.76	0.17	M	M
5.3	824.	2500.	4.37	-3.39	-3.35	-0.42	M	M
8.0	1324.	3000.	-0.13	-4.50	-3.78	-0.86	M	M
12.8	*2130	3806	-2.34		0.57	3.50		
14.0	2324.	4000.	-3.99	-3.87	-0.19	2.74		
20.0	3324.	5000.	-11.06	-7.07	-3.12	-0.19		
25.6	4324.	6000.	-19.05	-8.00	-3.37	-0.45		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/08/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	1.9	-3.3	3.9	330.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5679

DATE 10/08/77 TIME 14 04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		13.92		0.0		2.1	23.
0.8	150.	1826.	10.58	-3.34	-2.73	0.20	6.0	260.
1.7	324.	2000.	9.23	-0.98	-3.66	-0.74	4.0	248.
1.5	300.	1976.	9.31	-0.29	-3.66	-0.74	4.0	248.
2.6	500.	2176.	7.31	-2.00	-4.62	-1.69	4.8	256.
3.8	824.	2500.	3.50	-3.73	-6.16	-3.23	2.8	288.
6.3	1324.	3000.	0.83	-2.75	-0.94	1.99	5.8	250.
12.9	2324.	4000.	-4.09	-4.92	-1.34	1.59		
19.3	3324.	5000.	-11.65	-7.56	-2.93	-0.00		
25.2	4324.	6000.	-20.27	-8.61	-2.98	-0.06		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5679

DATE 10/08/77 TIME 14 04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.8	-1.9	2.1	23.
0.5	76.	1752.	4.1	0.6	4.1	262.
1.0	221.	1897.	7.6	1.5	7.8	259.
1.5	297.	1973.	3.7	1.5	4.0	248.
2.0	379.	2055.	3.6	1.4	3.9	248.
2.5	484.	2160.	4.6	1.1	4.8	257.
3.0	608.	2284.	5.1	1.4	5.2	255.
3.5	737.	2413.	2.2	-0.4	2.3	280.
4.0	900.	2576.	2.9	-1.4	3.2	295.
4.5	1038.	2714.	4.2	-1.0	4.3	284.
5.0	1119.	2795.	4.2	0.2	4.2	268.
5.5	1195.	2871.	3.7	0.2	3.7	267.
6.0	1271.	2947.	7.1	2.1	7.4	254.
6.5	1347.	3023.	4.7	1.9	5.0	248.
7.0	1423.	3099.	4.7	2.8	5.5	240.
7.5	1500.	3176.	4.6	1.9	5.0	248.
8.0	1576.	3252.	4.5	5.3	7.0	221.
8.5	1652.	3328.	4.1	0.9	4.2	257.
9.0	1728.	3404.	4.2	-0.8	4.3	281.
9.5	1804.	3480.	3.6	-2.6	4.5	306.
10.0	1881.	3557.	3.6	-3.7	5.2	315.
10.5	1957.	3633.	3.6	-5.6	6.6	328.
11.0	2033.	3709.	0.5	-5.6	5.6	355.
11.5	2109.	3785.	3.8	-9.2	9.9	338.
12.0	2185.	3861.	3.8	-6.9	7.8	331.
12.5	2262.	3938.	4.2	-6.9	8.1	329.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/10/77 TIME 14 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		11.95		0.0		9.0	170.
0.9	150.	1826.	11.57	-0.38	-7.27	-4.34	4.1	51.
1.4	324.	2000.	9.36	-2.16	-7.87	-4.94	10.0	54.
1.3	300.	1976.	9.45	0.03	-7.87	-4.94	9.1	53.
1.9	500.	2176.	7.54	-1.90	-6.45	-3.52	12.7	44.
3.2	824.	2500.	4.57	-2.59	-2.24	0.69	9.1	45.
5.7	1324.	3000.	-0.11	-5.05	-2.27	0.66	4.6	180.
9.5	2324.	4000.	-9.57	-9.47	-2.14	0.79	M	M
15.2	3324.	5000.	-11.85	-2.28	-4.89	-1.96		
20.9	4324.	6000.	-18.35	-6.50	-2.37	0.55		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/10/77 TIME 14 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-1.6	8.9	9.0	170.
0.5	76.	1752.	-2.7	-2.4	3.6	48.
1.0	161.	1837.	-3.3	-2.6	4.2	51.
1.5	369.	2045.	-9.4	-6.7	11.5	54.
2.0	543.	2219.	-8.6	-9.9	13.1	41.
2.5	684.	2360.	-7.9	-9.0	12.0	41.
3.0	790.	2466.	-9.4	-7.2	11.8	53.
3.5	866.	2542.	-3.4	-4.7	5.8	36.
4.0	942.	2618.	-2.5	-2.8	3.8	42.
4.5	1059.	2735.	0.1	-1.6	1.6	355.
5.0	1185.	2861.	2.9	-2.5	3.8	311.
5.5	1278.	2954.	0.7	-4.3	4.3	351.
6.0	1372.	3048.	-0.2	-4.8	4.8	2.
6.5	1448.	3124.	-1.1	-6.2	6.3	10.
7.0	1524.	3200.	2.1	-4.0	4.5	333.
7.5	1618.	3294.	0.1	-5.5	5.5	359.
8.0	1810.	3486.	3.0	-1.8	3.5	301.
8.5	2012.	3688.	1.6	-2.6	3.1	328.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5686

ATE 10/12/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.21		0.0		2.1	330.
0.8	* 114	1790	0.64		5.11	8.04		
1.0	150	1826	0.64	3.86	1.70	4.63	0.4	102.
2.0	300	1976	1.02	0.38	2.26	5.19	0.7	169.
2.1	324.	2000.	1.88	0.55	1.88	4.81	0.7	168.
3.3	500	2176	1.98	0.41	-0.19	2.74	0.8	109.
5.4	824.	2500.	0.83	-1.14	-1.89	1.04	3.5	162.
8.7	1324.	3000.	-0.32	-1.06	-1.70	1.22	3.9	256.
15.2	2324.	4000.	-3.70	-3.48	-1.72	1.21		
21.5	3324.	5000.	-11.65	-7.95	-2.93	-0.00		
27.0	4324.	6000.	-22.38	-10.73	-6.39	-3.46		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5686

ATE 10/12/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	1.0	-1.8	2.1	330.
0.5	76.	1752.	-2.1	1.0	2.3	114.
1.0	152.	1828.	-0.3	0.1	0.3	102.
1.5	229.	1905.	0.1	0.8	0.8	184.
2.0	305.	1981.	-0.1	0.6	0.7	168.
2.5	381.	2057.	-0.1	0.7	0.7	171.
3.0	457.	2133.	-0.2	-0.1	0.2	63.
3.5	533.	2209.	-0.7	1.0	1.2	144.
4.0	610.	2286.	-0.6	1.5	1.7	158.
4.5	686.	2362.	-0.9	2.6	2.8	162.
5.0	762.	2438.	-1.2	3.2	3.4	160.
5.5	838.	2514.	-1.1	3.4	3.6	163.
6.0	914.	2590.	-0.8	2.7	2.8	164.
6.5	991.	2667.	0.6	2.8	2.9	191.
7.0	1067.	2743.	0.5	3.5	3.6	189.
7.5	1143.	2819.	0.3	1.1	1.2	197.
8.0	1219.	2895.	2.4	1.6	2.9	236.
8.5	1295.	2971.	4.0	1.4	4.2	251.
9.0	1372.	3048.	3.5	0.3	3.5	264.
9.5	1448.	3124.	2.6	-0.1	2.6	272.
10.0	1524.	3200.	3.3	1.0	3.5	253.
10.5	1600.	3276.	2.6	1.8	3.2	235.
11.0	1676.	3352.	2.6	-0.0	2.6	270.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

DATE 10/12/77 TIME 13 59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		16.19		0.0		2.1	160.
0.7	? 150.	1826	12.46	-3.73	-5.42	-2.50	2.3	311.
1.2	324.	?2000.	11.21	-1.25	-5.09	-2.16	2.8	318.
1.1	? 300	1976	10.69	-0.52	-5.09	-2.16	3.1	315.
1.9	? 500	2176	9.35	-1.34	-4.57	-1.64	2.5	327.
3.3	824.	?2500.	5.64	-3.71	-5.19	-2.26	2.7	212.
5.4	1324.	3000.	1.50	-4.13	-1.50	1.42	8.7	186.
11.4	2324.	4000.	-6.72	-8.22	-4.05	-1.12	7.0	240.
16.7	3324.	5000.	-16.34	-9.62	-2.37	0.56		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

DATE 10/12/77 TIME 13 59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.7	1.9	2.1	160.
0.5	76.	1752.	1.1	-0.9	1.5	310.
1.0	270.	1946.	2.6	-2.4	3.5	312.
1.5	401.	2077.	0.9	-1.5	1.7	327.
2.0	531.	2207.	1.5	-2.3	2.7	327.
2.5	640.	2316.	1.1	0.6	1.2	239.
3.0	754.	2430.	1.2	1.3	1.8	222.
3.5	890.	2566.	1.3	3.2	3.5	202.
4.0	1022.	2698.	-0.3	5.1	5.1	177.
4.5	1145.	2821.	1.2	5.7	5.9	192.
5.0	1257.	2933.	-0.0	6.6	6.6	180.
5.5	1333.	3009.	1.0	8.9	9.0	187.
6.0	1409.	3085.	1.8	7.3	7.5	194.
6.5	1486.	3162.	1.7	8.0	8.2	192.
7.0	1562.	3238.	0.5	6.0	6.0	184.
7.5	1638.	3314.	0.9	2.6	2.7	199.
8.0	1714.	3390.	4.1	3.1	5.1	233.
8.5	1803.	3479.	1.2	2.6	2.9	204.
9.0	1880.	3556.	3.5	1.9	4.0	242.
9.5	1962.	3638.	7.4	3.2	8.0	247.
10.0	2066.	3742.	5.8	2.8	6.4	244.
10.5	2164.	3840.	5.9	3.8	7.1	237.
11.0	2254.	3930.	6.5	2.7	7.0	247.
11.5	2344.	4020.	6.0	3.7	7.0	238.
12.0	2445.	4121.	5.4	2.0	5.8	250.
12.5	2560.	4236.	4.5	6.0	7.5	217.
13.0	2661.	4337.	1.3	5.7	5.9	193.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.11		0.0		1.0	330.
1.0	150	1826	8.57	3.46	2.20	5.13	2.5	81.
2.0	300	1976	8.21	-0.36	2.92	5.85	6.0	66.
2.1	324.	2000.	10.07	0.88	4.02	6.95	6.3	61.
3.3	500	2176	9.91	0.82	-1.64	1.29	3.6	31.
5.4	824.	2500.	8.67	-1.23	-1.46	1.46	2.5	334.
8.7	1324.	3000.	5.30	-3.38	-2.79	0.14	M	M
15.2	2324.	4000.	-0.03	-5.33	-1.32	1.61		
21.1	3324.	5000.	-8.39	-8.36	-4.46	-1.53		
27.0	4324.	6000.	-17.34	-8.96	-3.56	-0.63		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 07 30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.5	-0.9	1.0	330.
0.5	76.	1752.	-1.5	0.4	1.5	104.
1.0	152.	1828.	-2.4	-0.4	2.5	80.
1.5	229.	1905.	-4.2	-1.0	4.3	77.
2.0	305.	1981.	-5.6	-2.6	6.2	65.
2.5	381.	2057.	-5.1	-4.5	6.8	49.
3.0	457.	2133.	-3.9	-4.0	5.6	44.
3.5	533.	2209.	-0.7	-2.0	2.1	21.
4.0	610.	2286.	-1.2	-3.6	3.8	18.
4.5	686.	2362.	-0.3	-2.0	2.0	9.
5.0	762.	2438.	0.6	-2.2	2.3	344.
5.5	838.	2514.	1.2	-2.2	2.5	331.
6.0	914.	2590.	1.8	-5.1	5.4	341.
6.5	991.	2667.	2.0	-2.5	3.2	322.
7.0	1067.	2743.	2.3	-2.2	3.2	314.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 14 15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.56		0.0		1.0	160.
1.0	150	1826	14.65	-0.90	-2.15	0.78	1.8	316.
2.0	300	1976	13.65	-1.00	-1.80	1.13	1.5	332.
2.1	324.	2000.	13.01	-0.43	-1.62	1.31	1.3	325.
3.3	500	2176	12.29	-0.92	-2.89	0.04	0.7	293.
5.4	824.	2500.	11.45	-0.84	-0.36	2.57	0.8	279.
8.7	1324.	3000.	8.40	-3.05	-2.57	0.36	M	M
15.2	2324.	4000.	4.26	-4.14	-1.12	1.81		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/15/77 TIME 14 15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.4	1.0	1.0	160.
0.5	76.	1752.	0.6	-1.2	1.3	332.
1.0	152.	1828.	1.3	-1.3	1.8	316.
1.5	229.	1905.	1.3	-2.0	2.4	327.
2.0	305.	1981.	0.7	-1.2	1.4	332.
2.5	381.	2057.	0.7	-0.4	0.8	304.
3.0	457.	2133.	0.4	-0.7	0.8	330.
3.5	533.	2209.	0.7	0.1	0.7	264.
4.0	610.	2286.	0.6	-0.9	1.1	328.
4.5	686.	2362.	-0.6	-0.6	0.8	43.
5.0	762.	2438.	0.4	-0.5	0.6	323.
5.5	838.	2514.	0.9	0.0	0.9	269.
6.0	914.	2590.	1.3	0.5	1.4	248.
6.5	991.	2667.	1.3	0.9	1.6	235.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5692

DATE 10/17/77 TIME 08 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.61		0.0		1.0	330.
1.0	150	1826	9.73	1.12	1.83	4.75	M	M
2.0	300	1976	10.37	0.65	0.36	3.29	M	M
2.1	324.	2000.	10.64	0.26	0.18	3.11	M	M
3.3	500	2176	10.74	0.11	1.45	4.38	M	M
5.4	824.	2500.	10.66	-0.09	-1.82	1.11	M	M
8.6	1324.	3000.	7.58	-3.07	-1.66	1.27	M	M
15.1	2324.	4000.	-0.88	-8.46	-2.85	0.08		
20.8	3324.	5000.	-9.26	-8.38	-5.05	-2.12		
26.4	4324.	6000.	-16.74	-7.48	-2.96	-0.04		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5692

DATE 10/17/77 TIME 08 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.5	-0.9	1.0	330.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/17/77 TIME 13 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.74		0.0		1.0	160.
0.9	150	1826	14.03	-1.71	-2.69	0.24	1.7	328.
1.9	300	1976	13.10	-0.93	-0.36	2.57	1.5	305.
2.0	324.	2000.	13.10	0.0	-0.36	2.57	1.4	299.
3.2	500	2176	12.83	-0.27	-1.08	1.85	2.3	215.
5.3	824.	2500.	11.36	-1.47	-3.81	-0.88	3.9	212.
8.3	1324.	3000.	7.27	-4.08	-2.95	-0.02	5.5	241.
14.7	2324.	4000.	-0.13	-7.40	-1.32	1.61		
21.2	3324.	5000.	-7.12	-6.99	-3.48	-0.55		
27.0	4324.	6000.	-16.33	-9.22	-3.15	-0.23		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/17/77 TIME 13 50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.4	1.0	1.0	160.
0.5	76.	1752.	0.9	-1.0	1.3	318.
1.0	165.	1841.	0.9	-1.6	1.8	330.
1.5	241.	1917.	1.2	-1.0	1.6	312.
2.0	317.	1993.	1.2	-0.8	1.5	303.
2.5	393.	2069.	1.0	0.2	1.0	260.
3.0	469.	2145.	1.0	0.6	1.1	240.
3.5	546.	2222.	-0.2	4.0	4.0	178.
4.0	622.	2298.	0.2	3.2	3.2	183.
4.5	698.	2374.	1.1	3.0	3.2	200.
5.0	774.	2450.	2.1	3.4	4.0	212.
5.5	850.	2526.	2.1	3.3	3.9	212.
6.0	947.	2623.	2.7	3.5	4.5	218.
6.5	1036.	2712.	3.2	4.2	5.3	217.
7.0	1112.	2788.	3.0	4.0	5.0	217.
7.5	1189.	2865.	2.7	2.9	3.9	224.
8.0	1271.	2947.	5.1	5.3	7.4	224.
8.5	1354.	3030.	4.1	1.5	4.4	251.
9.0	1430.	3106.	5.7	2.7	6.3	245.
9.5	1506.	3182.	7.4	3.9	8.3	242.
10.0	1582.	3258.	8.0	-0.6	8.0	275.
10.5	1658.	3334.	3.4	5.0	6.0	214.
11.0	1735.	3411.	5.9	0.1	5.9	269.
11.5	1811.	3487.	7.9	1.0	8.0	263.
12.0	1889.	3565.	6.7	3.8	7.7	241.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5790

DATE 10/21/77 TIME 07 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.77		0.0		0.8	45.
1.0	150	1826	5.58	-0.19	-0.93	2.00	0.8	51.
2.0	300	1976	4.64	-0.94	-1.49	1.44	3.4	238.
2.1	324.	2000.	4.45	-0.18	-0.37	2.56	3.2	236.
3.3	500	2176	4.45	-0.01	-1.30	1.62	2.5	232.
5.4	824.	2500.	2.08	-2.37	-2.25	0.68	2.0	275.
8.7	1324.	3000.	-1.28	-3.17	-1.52	1.41	2.5	240.
14.8	2324.	4000.	-9.97	-8.88	-2.53	0.40		
21.4	3324.	5000.	-18.85	-8.88	-2.97	-0.05		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5790

DATE 10/21/77 TIME 07 35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.5	-0.5	0.8	45.
0.5	76.	1752.	-0.1	0.1	0.2	140.
1.0	152.	1828.	-0.6	-0.5	0.8	48.
1.5	229.	1905.	1.2	-1.4	1.8	318.
2.0	305.	1981.	2.8	2.1	3.5	233.
2.5	381.	2057.	2.0	0.9	2.2	245.
3.0	457.	2133.	2.4	1.4	2.7	241.
3.5	533.	2209.	1.6	1.6	2.3	225.
4.0	610.	2286.	1.3	1.2	1.8	229.
4.5	686.	2362.	1.5	1.0	1.8	235.
5.0	762.	2438.	1.7	0.5	1.7	254.
5.5	838.	2514.	2.0	-0.4	2.0	280.
6.0	914.	2590.	1.8	0.2	1.8	265.
6.5	991.	2667.	1.5	1.2	1.9	230.
7.0	1067.	2743.	2.7	2.1	3.5	233.
7.5	1143.	2819.	3.5	2.7	4.4	232.
8.0	1219.	2895.	2.3	2.2	3.2	226.
8.5	1296.	2972.	1.7	1.9	2.6	223.
9.0	1372.	3048.	2.4	0.1	2.4	268.
9.5	1448.	3124.	1.8	1.2	2.1	237.
10.0	1530.	3206.	1.6	1.9	2.5	220.
10.5	1627.	3303.	2.4	1.6	2.9	236.
11.0	1717.	3393.	2.7	0.7	2.8	255.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/21/77 TIME 13 56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		12.09		0.0		1.0	160.
1.0	? 150	1826	11.18	-0.92	-2.54	0.39	1.0	11.
2.0	? 300	1976	10.07	-1.11	-2.00	0.92	2.2	327.
2.1	324.	?2000.	9.80	-0.27	-3.47	-0.55	2.5	329.
3.1	? 500	2176	7.52	-2.28	-3.50	-0.57	3.1	328.
4.9	824.	2500.	5.68	-1.84	-2.78	0.14	4.1	305.
8.2	1324.	3000.	2.55	-2.94	-1.69	1.24	4.4	320.
13.2	2324.	4000.	-5.94	-8.68	-3.85	-0.92		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 0

DATE 10/21/77 TIME 13 56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.4	1.0	1.0	160.
0.5	76.	1752.	0.2	0.2	0.3	220.
1.0	152.	1828.	-0.1	-1.1	1.1	4.
1.5	229.	1905.	0.8	-1.6	1.7	334.
2.0	305.	1981.	1.2	-1.9	2.2	326.
2.5	381.	2057.	1.2	-2.9	3.1	337.
3.0	483.	2159.	1.7	-2.6	3.1	328.
3.5	598.	2274.	1.6	-2.6	3.0	328.
4.0	680.	2356.	1.8	-2.2	2.9	321.
4.5	756.	2432.	3.1	-2.2	3.8	306.
5.0	834.	2510.	3.4	-2.4	4.1	305.
5.5	911.	2587.	3.5	-6.0	7.0	330.
6.0	987.	2663.	3.6	-5.2	6.3	325.
6.5	1063.	2739.	4.1	-6.2	7.4	327.
7.0	1139.	2815.	1.6	-4.3	4.6	340.
7.5	1215.	2891.	3.7	-3.6	5.1	314.
8.0	1292.	2968.	3.0	-3.4	4.5	318.
8.5	1368.	3044.	2.6	-3.2	4.2	321.
9.0	1444.	3120.	3.5	-6.5	7.4	332.
9.5	1520.	3196.	3.4	-3.2	4.6	313.
10.0	1596.	3272.	2.0	-3.2	3.8	328.
10.5	1673.	3349.	1.1	-2.7	2.9	338.
11.0	1749.	3425.	2.6	-2.7	3.8	316.
11.5	1825.	3501.	4.4	-1.4	4.6	287.
12.0	1941.	3617.	4.8	-4.3	6.4	312.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/27/77 TIME 08 06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.34		0.0		1.0	330.
1.0	150	1826	10.24	3.91	5.11	8.04	1.3	37.
2.0	300	1976	11.17	0.93	-0.18	2.75	1.2	172.
2.1	324.	2000.	10.90	0.0	-1.45	1.47	1.9	182.
3.3	500	2176	11.16	-0.01	1.63	4.56	5.8	189.
5.4	824.	2500.	10.25	-0.91	-1.09	1.84	3.6	185.
8.7	1324.	3000.	6.71	-3.07	-3.14	-0.21	6.1	209.
15.1	2324.	4000.	-1.95	-9.14	-3.99	-1.07		
21.0	3324.	5000.	-6.72	-4.77	-1.93	1.00		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5699

DATE 10/27/77 TIME 08 06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.5	-0.9	1.0	330.
0.5	76.	1752.	-1.8	0.3	1.8	99.
1.0	152.	1828.	-0.7	-1.0	1.3	35.
1.5	229.	1905.	-0.3	-0.2	0.4	59.
2.0	305.	1981.	-0.0	1.2	1.2	180.
2.5	381.	2057.	0.5	3.8	3.8	187.
3.0	457.	2133.	0.7	5.0	5.1	188.
3.5	533.	2209.	1.1	6.3	6.4	190.
4.0	610.	2286.	0.6	5.4	5.4	186.
4.5	686.	2362.	0.3	4.6	4.6	184.
5.0	762.	2438.	-0.1	3.5	3.5	179.
5.5	838.	2514.	0.4	3.6	3.6	187.
6.0	914.	2590.	2.5	3.8	4.6	213.
6.5	991.	2667.	3.3	4.5	5.6	216.
7.0	1067.	2743.	3.0	5.4	6.2	209.
7.5	1143.	2819.	3.3	5.8	6.7	209.
8.0	1219.	2895.	3.1	5.6	6.4	209.
8.5	1295.	2971.	2.9	5.4	6.1	208.
9.0	1375.	3051.	3.0	5.3	6.1	210.
9.5	1453.	3129.	2.7	4.6	5.4	211.
10.0	1529.	3205.	3.0	4.6	5.5	214.
10.5	1605.	3281.	2.7	4.5	5.2	211.
11.0	1681.	3357.	3.5	4.3	5.5	219.
11.5	1760.	3436.	3.4	4.1	5.3	220.
12.0	1841.	3517.	3.7	4.7	5.9	218.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

ATE 10/27/77 TIME 15 07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		22.40		0.0		1.0	160.
0.9	150	1826	20.27	-2.13	-1.73	1.19	3.4	290.
1.9	300	1976	19.53	-0.75	-2.62	0.31	4.6	269.
2.0	324.	2000.	18.87	-0.27	-1.75	1.18	4.8	268.
3.2	500	2176	18.26	-1.00	-2.64	0.29	5.1	260.
5.3	824.	2500.	15.74	-2.54	-2.31	0.61	5.0	235.
8.4	1324.	3000.	10.99	-4.72	-2.36	0.57	6.5	207.
13.9	2324.	4000.	1.60	-9.40	-3.20	-0.27		
15.5	*2621	4297	-1.28		0.95	3.87		
16.3	*2735	4411	1.02		2.27	5.20		
19.9	3324.	5000.	-4.77	-6.37	-2.68	0.25		
25.7	4324.	6000.	-12.65	-7.88	-3.33	-0.40		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5689

ATE 10/27/77 TIME 15 07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	-0.4	1.0	1.0	160.
0.5	76.	1752.	2.0	-1.3	2.4	303.
1.0	169.	1845.	3.4	-1.1	3.6	287.
1.5	245.	1921.	3.9	-0.1	3.9	271.
2.0	322.	1998.	4.8	0.2	4.8	268.
2.5	398.	2074.	5.2	1.1	5.3	258.
3.0	474.	2150.	5.2	1.1	5.3	258.
3.5	550.	2226.	4.7	0.5	4.8	263.
4.0	626.	2302.	5.1	0.7	5.2	262.
4.5	703.	2379.	4.2	0.8	4.2	259.
5.0	781.	2457.	4.2	2.0	4.7	244.
5.5	857.	2533.	4.0	3.5	5.3	229.
6.0	934.	2610.	3.5	5.1	6.2	214.
6.5	1013.	2689.	3.6	5.5	6.6	214.
7.0	1104.	2780.	4.0	6.0	7.2	214.
7.5	1184.	2860.	4.1	5.9	7.2	215.
8.0	1260.	2936.	3.0	5.9	6.6	207.
8.5	1337.	3013.	3.0	5.8	6.5	208.
9.0	1421.	3097.	3.4	5.9	6.9	210.
9.5	1539.	3215.	3.9	6.9	7.9	210.
10.0	1674.	3350.	5.2	6.6	8.4	218.
10.5	1752.	3428.	0.8	8.6	8.6	185.
11.0	1828.	3504.	2.2	7.4	7.7	197.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5736

DATE 10/29/77 TIME 07 45MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		7.74		0.0		1.0	330.
1.0	150	1826	9.79	2.04	1.82	4.75	2.0	125.
2.0	300	1976	10.07	0.28	-1.64	1.29	3.4	172.
2.1	324.	2000.	9.42	-0.27	-1.83	1.10	3.5	171.
3.3	500	2176	8.32	-1.48	-2.93	-0.01	6.6	159.
5.4	824.	2500.	5.87	-2.45	-3.33	-0.40	8.8	179.
8.6	1324.	3000.	1.79	-3.89	-1.88	1.05	9.1	200.
14.9	2324.	4000.	-7.21	-9.20	-2.51	0.42		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5736

DATE 10/29/77 TIME 07 45MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.5	-0.9	1.0	330.
0.5	76.	1752.	-1.6	1.0	1.8	121.
1.0	152.	1828.	-1.7	1.2	2.1	126.
1.5	229.	1905.	-2.1	1.6	2.6	128.
2.0	305.	1981.	-0.3	3.4	3.5	175.
2.5	381.	2057.	-1.3	3.5	3.8	159.
3.0	457.	2133.	-4.4	3.1	5.4	125.
3.5	533.	2209.	0.7	7.4	7.5	186.
4.0	610.	2286.	-1.6	7.1	7.3	167.
4.5	686.	2362.	-0.5	8.6	8.6	177.
5.0	762.	2438.	0.2	8.9	8.9	181.
5.5	846.	2522.	-0.3	8.7	8.7	178.
6.0	931.	2607.	-0.3	9.7	9.7	178.
6.5	1007.	2683.	2.8	7.3	7.8	201.
7.0	1084.	2760.	1.1	8.2	8.3	188.
7.5	1160.	2836.	3.1	8.0	8.6	201.
8.0	1236.	2912.	3.1	7.8	8.4	202.
8.5	1312.	2988.	3.1	8.4	9.0	200.
9.0	1388.	3064.	2.8	9.3	9.7	197.
9.5	1465.	3141.	2.8	9.2	9.6	197.
10.0	1541.	3217.	5.1	9.4	10.7	208.
10.5	1622.	3298.	0.6	9.9	10.0	183.
11.0	1699.	3375.	2.4	9.7	10.0	194.
11.5	1775.	3451.	2.1	10.1	10.4	191.
12.0	1851.	3527.	4.9	10.3	11.4	206.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5727

DATE 10/31/77 TIME 07 46MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		3.22		0.0		3.3	330.
1.0	150	1826	1.79	-1.43	-0.56	2.36	0.3	64.
2.0	300	1976	1.13	-0.66	-3.20	-0.27	1.8	142.
2.1	324.	2000.	0.16	-0.46	-2.64	0.29	3.0	172.
3.3	500	2176	-1.25	-1.92	-1.89	1.03	6.8	245.
5.4	824.	2500.	-2.34	-1.09	-1.90	1.02	9.1	243.
8.6	1324.	3000.	-6.63	-3.99	-2.31	0.62	11.2	248.
14.0	2324.	4000.	-15.64	-9.31	-1.18	1.75		
19.6	3324.	5000.	-25.44	-9.80	-4.01	-1.09		
25.7	4324.	6000.	-31.80	-6.36	-2.43	0.50		

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5727

DATE 10/31/77 TIME 07 46MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	1.7	-2.9	3.3	330.
0.5	76.	1752.	-2.1	-0.6	2.2	74.
1.0	152.	1828.	-0.2	-0.1	0.2	63.
1.5	229.	1905.	-0.4	1.5	1.6	166.
2.0	305.	1981.	-1.1	1.4	1.8	140.
2.5	384.	2060.	6.8	-0.0	6.8	270.
3.0	460.	2136.	5.7	2.4	6.2	248.
3.5	536.	2212.	6.6	3.3	7.4	243.
4.0	612.	2288.	5.9	3.7	7.0	238.
4.5	688.	2364.	6.7	4.0	7.7	239.
5.0	765.	2441.	8.3	5.5	10.0	237.
5.5	841.	2517.	8.0	3.9	8.9	244.
6.0	917.	2593.	7.0	3.1	7.7	246.
6.5	993.	2669.	7.8	3.2	8.4	248.
7.0	1069.	2745.	8.4	2.4	8.7	254.
7.5	1146.	2822.	10.2	3.2	10.7	253.
8.0	1223.	2899.	10.7	1.7	10.8	261.
8.5	1304.	2980.	10.1	4.7	11.2	245.
9.0	1380.	3056.	10.9	2.9	11.3	255.
9.5	1456.	3132.	11.0	3.1	11.5	255.
10.0	1559.	3235.	13.6	5.7	14.8	247.
10.5	1680.	3356.	14.2	6.9	15.8	244.
11.0	1784.	3460.	12.2	7.0	14.1	240.
11.5	1878.	3554.	12.9	7.2	14.8	241.
12.0	1972.	3648.	13.6	7.8	15.7	240.

UTAH UAUB ELEV 1676 METERS SOUNDING ID 5734

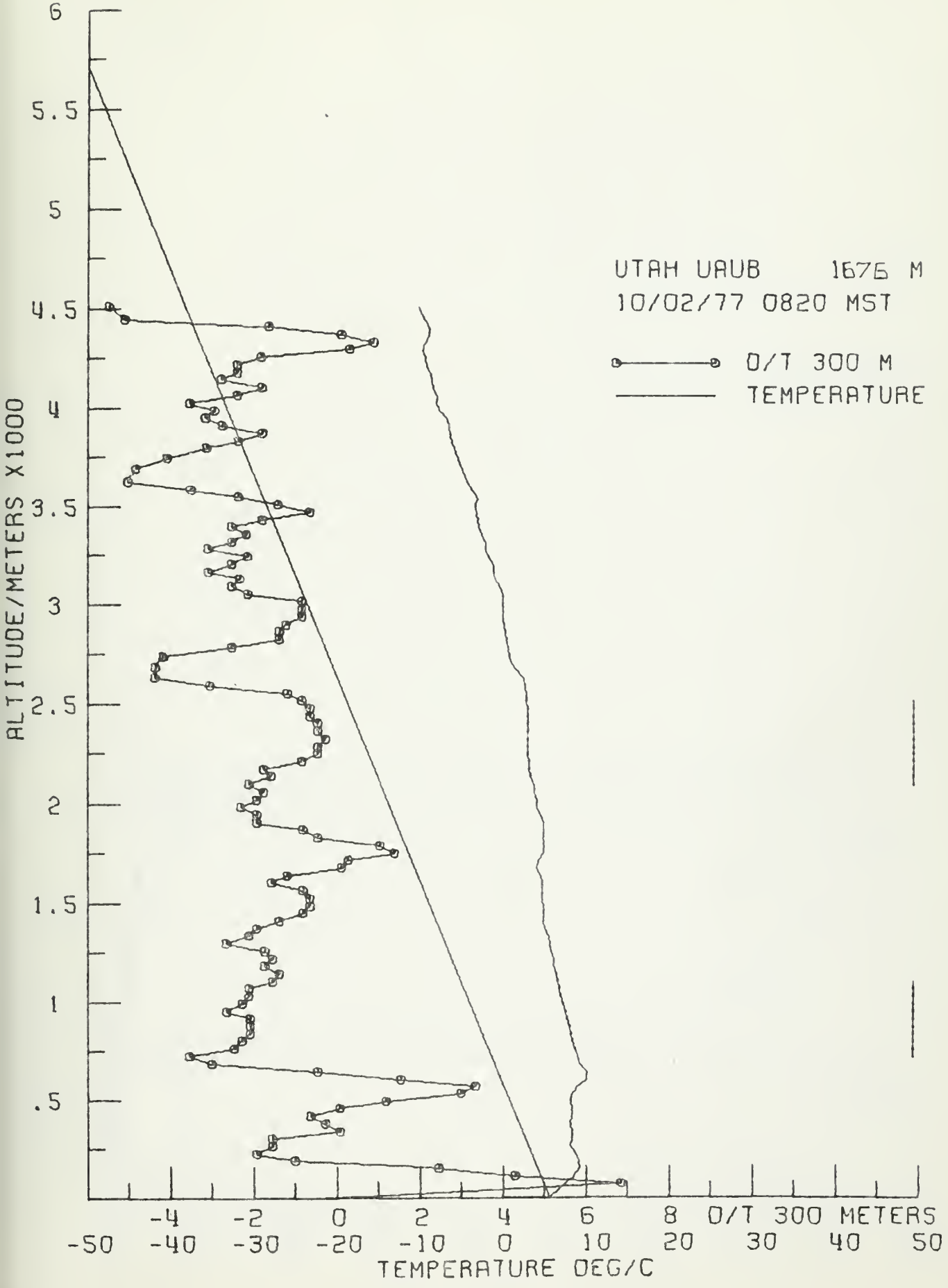
DATE 10/31/77 TIME 14 09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

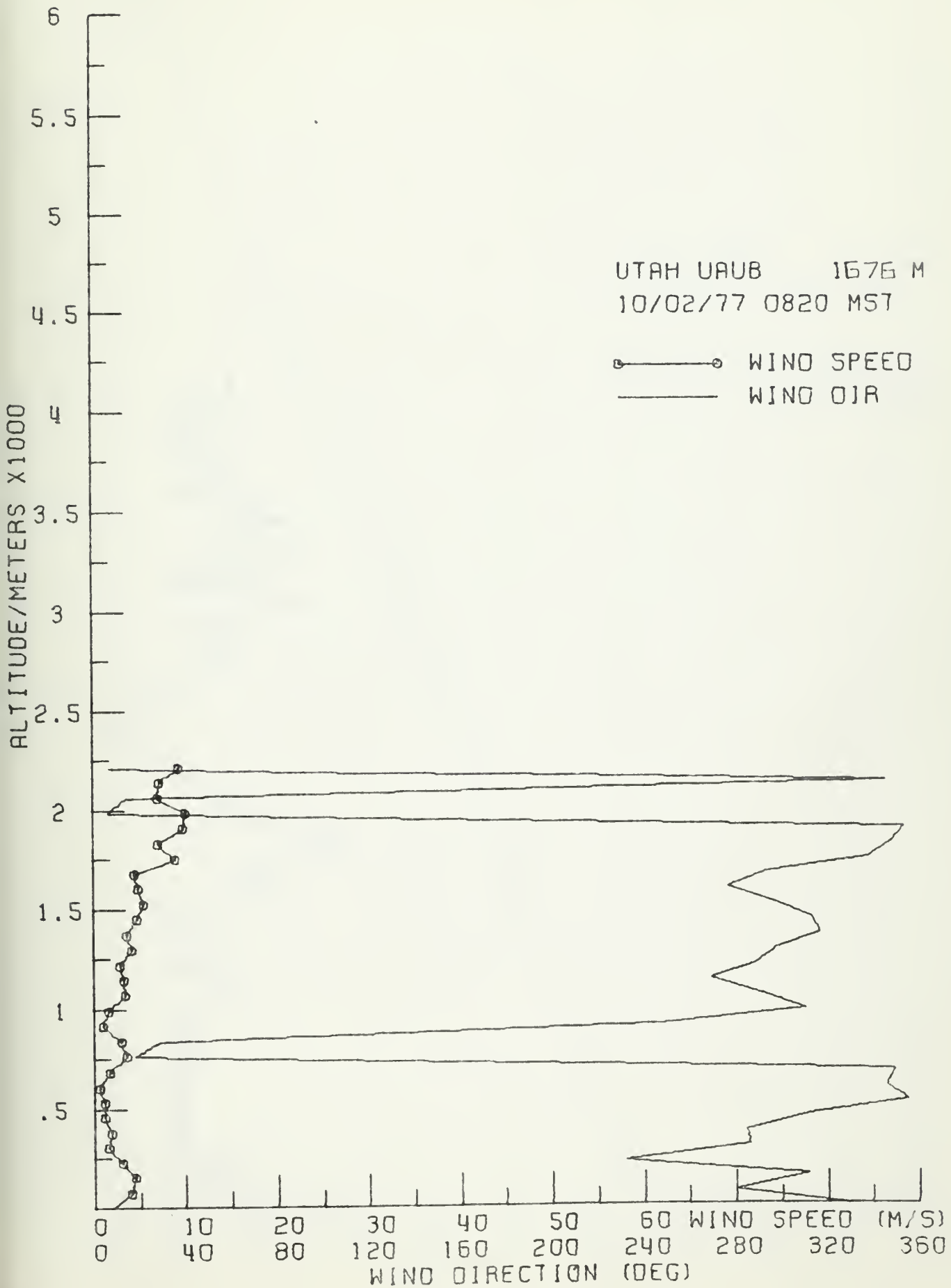
TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		7.46		0.0		5.7	360.
0.8	? 150	1826	4.68	-2.78	-3.73	-0.80	3.9	160.
1.4	? 300	1976	3.23	-1.45	-3.18	-0.25	3.4	178.
1.5	324.	?2000.	2.79	-0.45	-3.19	-0.26	2.9	184.
2.6	500	2176	1.32	-1.47	-3.39	-0.47	3.8	237.
4.5	824.	?2500.	-1.47	-2.79	-2.28	0.65	5.3	261.
7.7	1324.	3000.	-5.16	-3.00	-4.41	-1.49	10.0	259.
12.6	2324.	4000.	-13.05	-8.58	0.98	3.91		
18.2	3324.	5000.	-21.07	-8.02	-3.98	-1.06		
23.4	4324.	6000.	-29.95	-8.87	-4.04	-1.12		

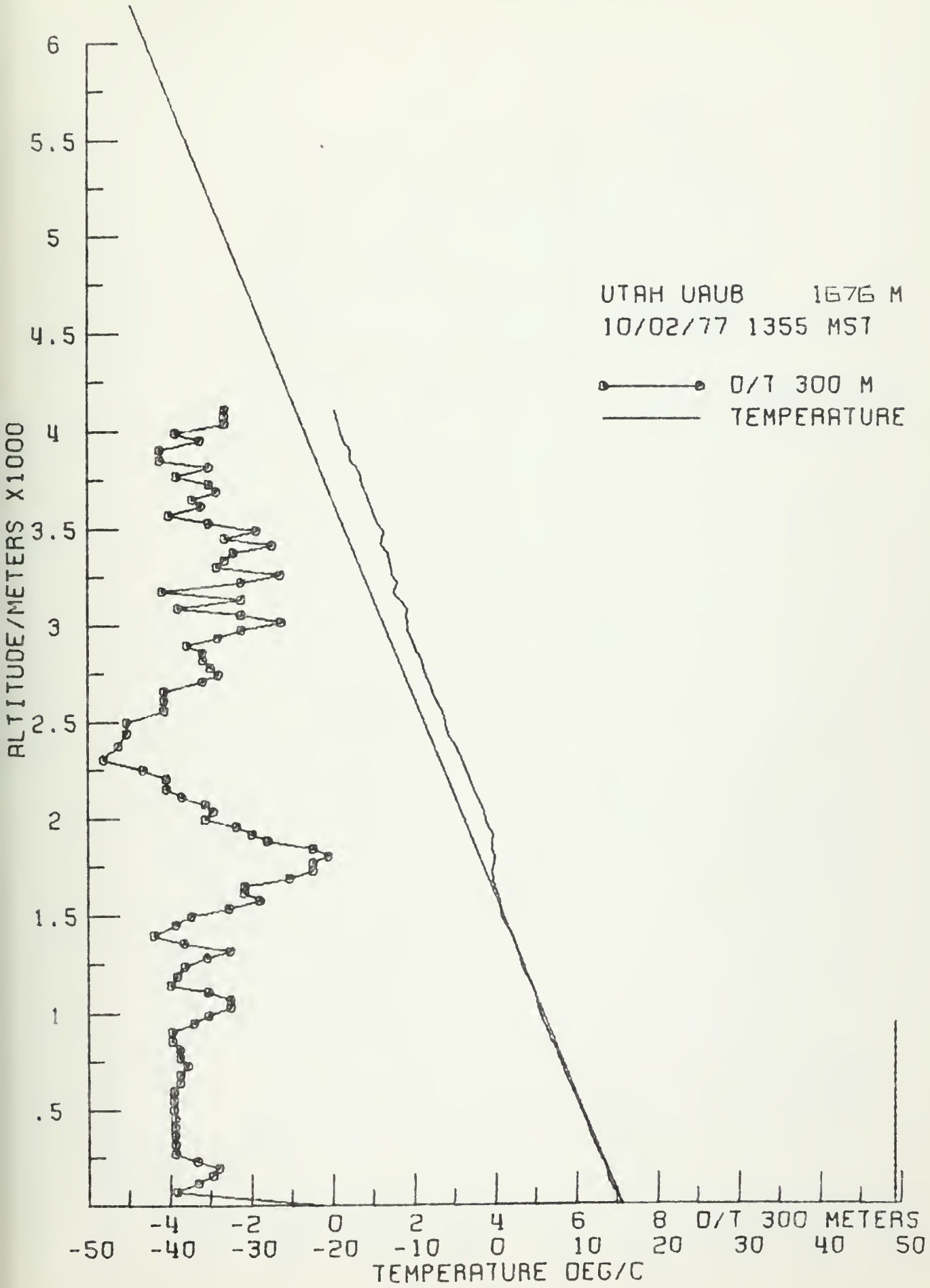
UTAH UAUB ELEV 1676 METERS SOUNDING ID 5734

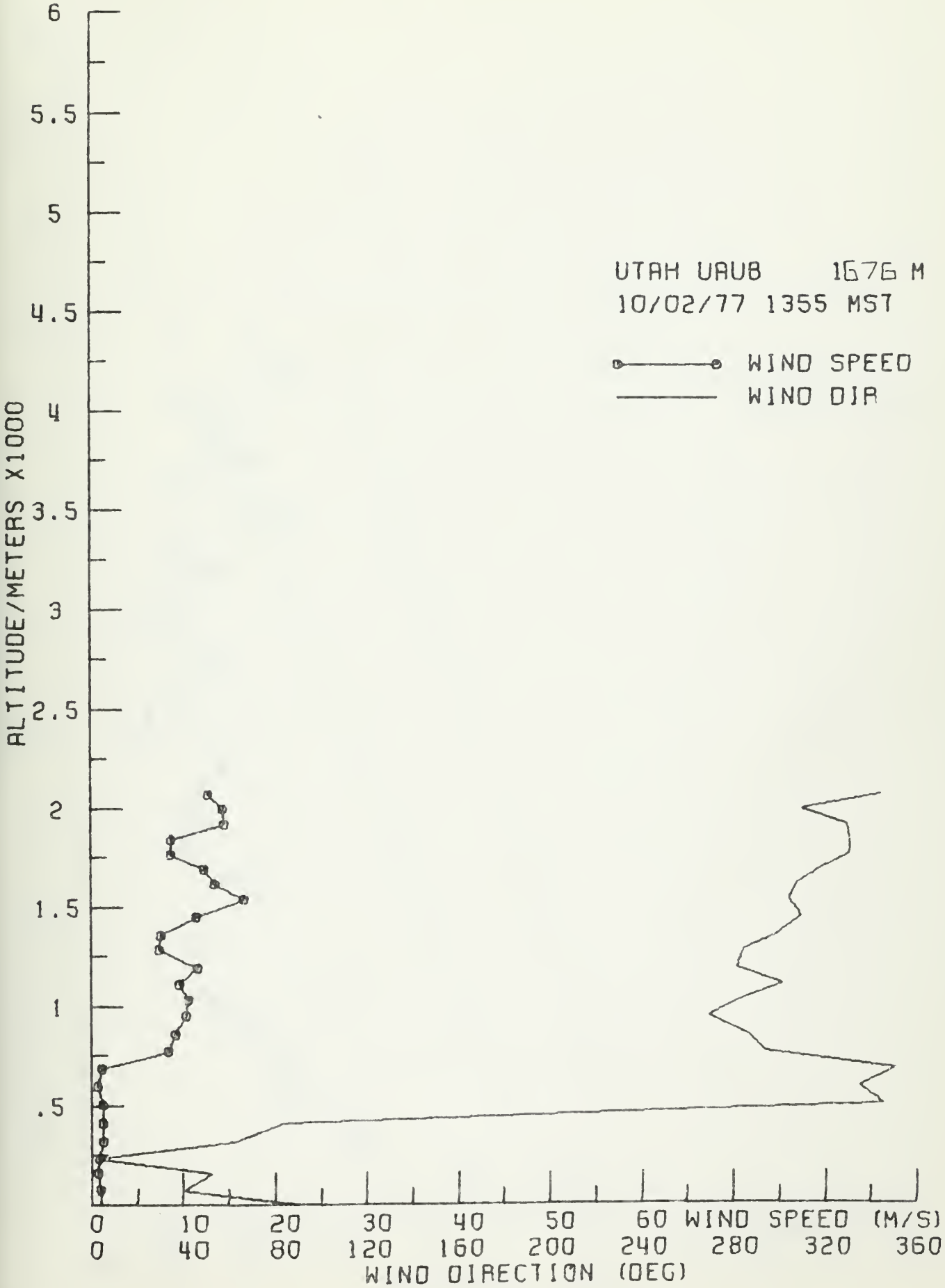
DATE 10/31/77 TIME 14 09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

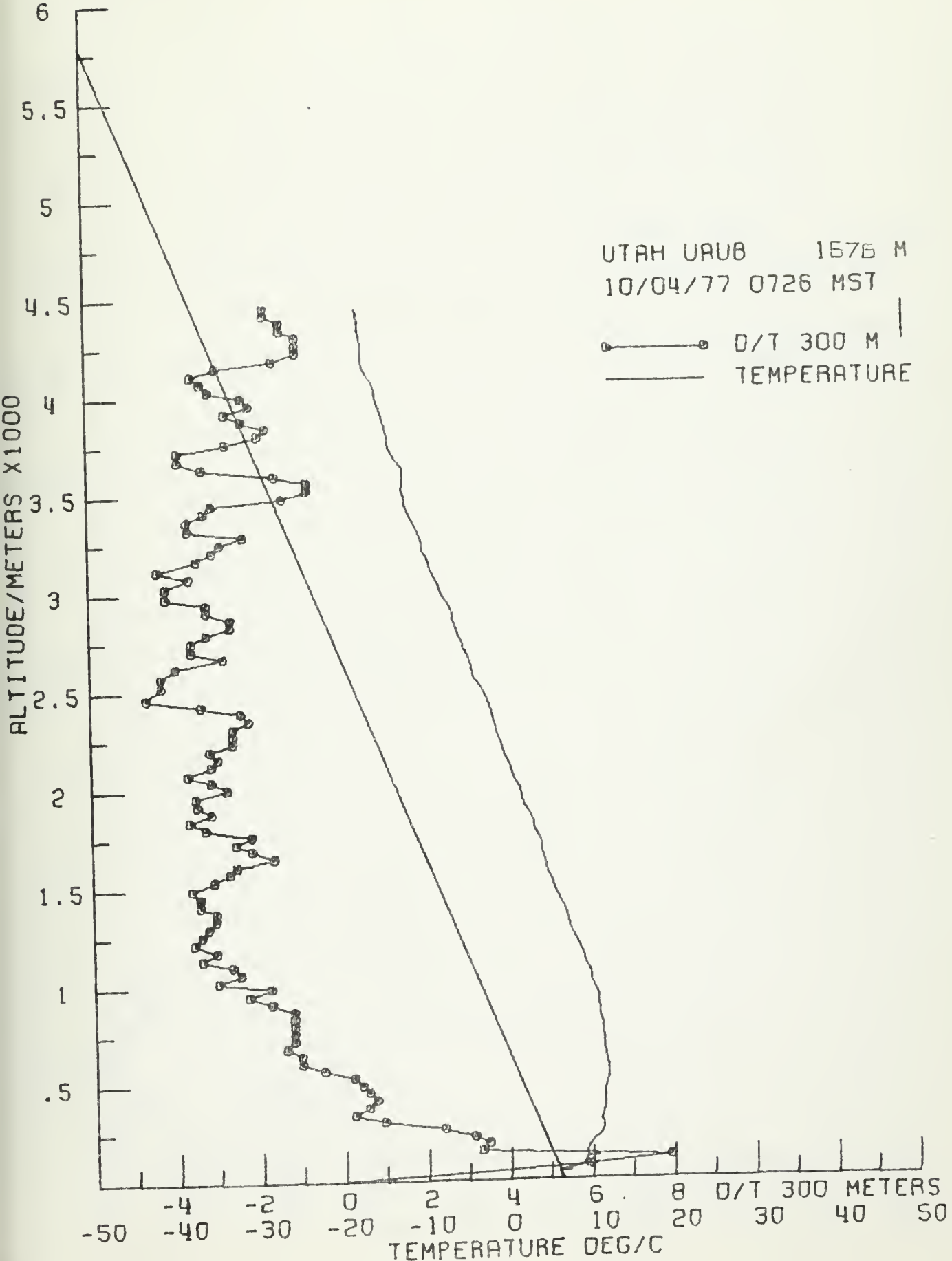
TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1676.	0.0	-5.7	5.7	360.
0.5	76.	1752.	-0.9	2.4	2.5	158.
1.0	222.	1898.	-1.6	5.0	5.2	162.
1.5	317.	1993.	0.0	2.9	2.9	181.
2.0	400.	2076.	2.0	2.3	3.0	220.
2.5	479.	2155.	2.8	1.7	3.2	239.
3.0	555.	2231.	4.3	3.4	5.4	232.
3.5	646.	2322.	4.1	2.9	5.0	235.
4.0	752.	2428.	4.3	2.4	5.0	241.
4.5	828.	2504.	5.3	0.7	5.3	262.
5.0	904.	2580.	6.8	-0.9	6.8	277.
5.5	980.	2656.	6.4	1.4	6.6	258.
6.0	1057.	2733.	7.3	0.8	7.4	264.
6.5	1133.	2809.	7.8	0.8	7.8	264.
7.0	1209.	2885.	8.6	0.7	8.7	265.
7.5	1285.	2961.	9.3	1.6	9.4	261.
8.0	1395.	3071.	10.8	2.8	11.1	255.
8.5	1499.	3175.	11.2	3.3	11.7	254.
9.0	1577.	3253.	9.4	2.6	9.7	254.
9.5	1653.	3329.	7.9	3.0	8.5	249.
10.0	1739.	3415.	7.6	4.2	8.6	241.
10.5	1869.	3545.	10.8	5.7	12.2	242.
11.0	2035.	3711.	14.7	6.2	15.9	247.
11.5	2154.	3830.	11.7	4.4	12.5	249.
12.0	2230.	3906.	11.6	4.0	12.3	251.

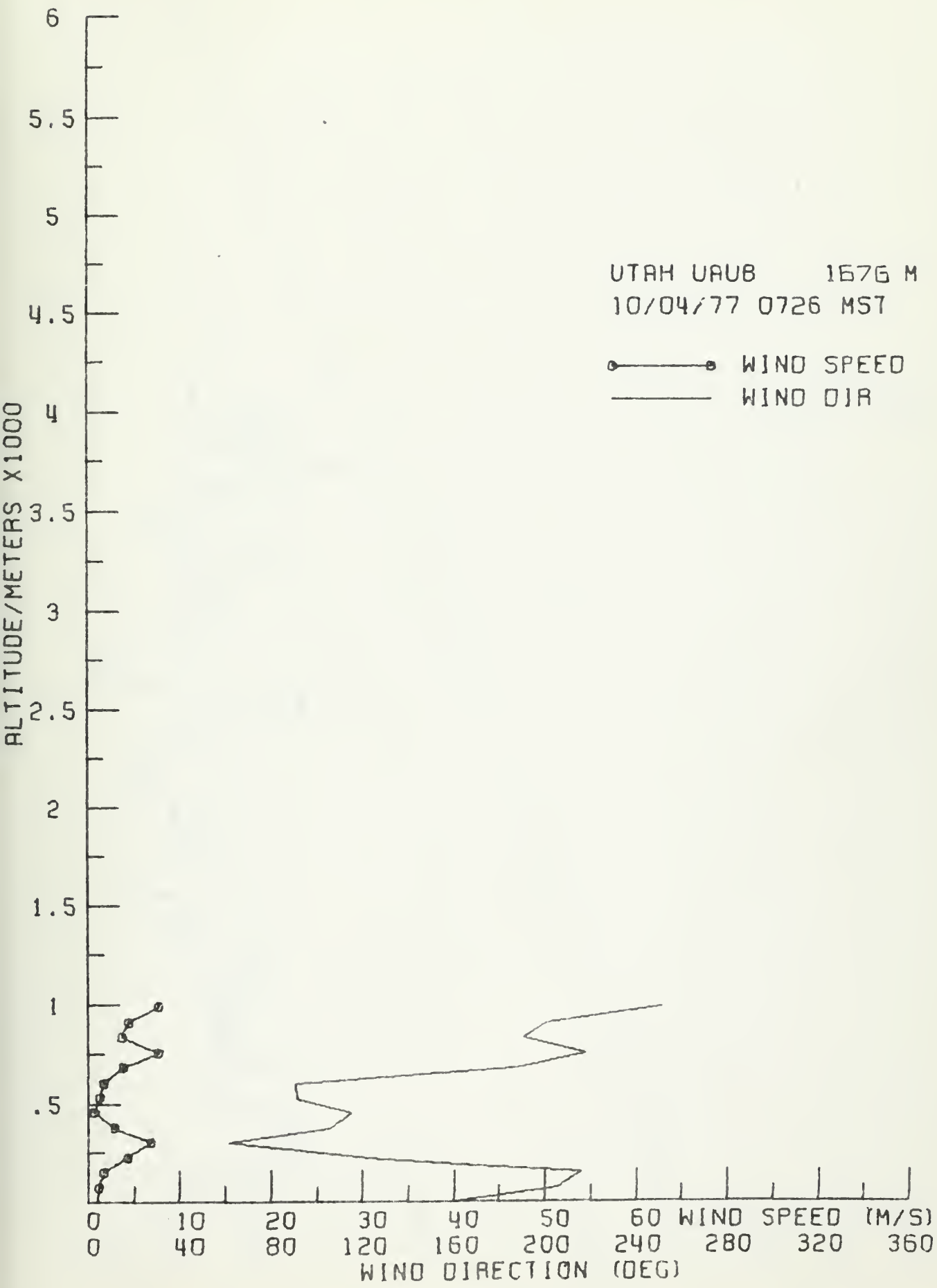

UTAH UAUB 1676 M
10/02/77 0820 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C

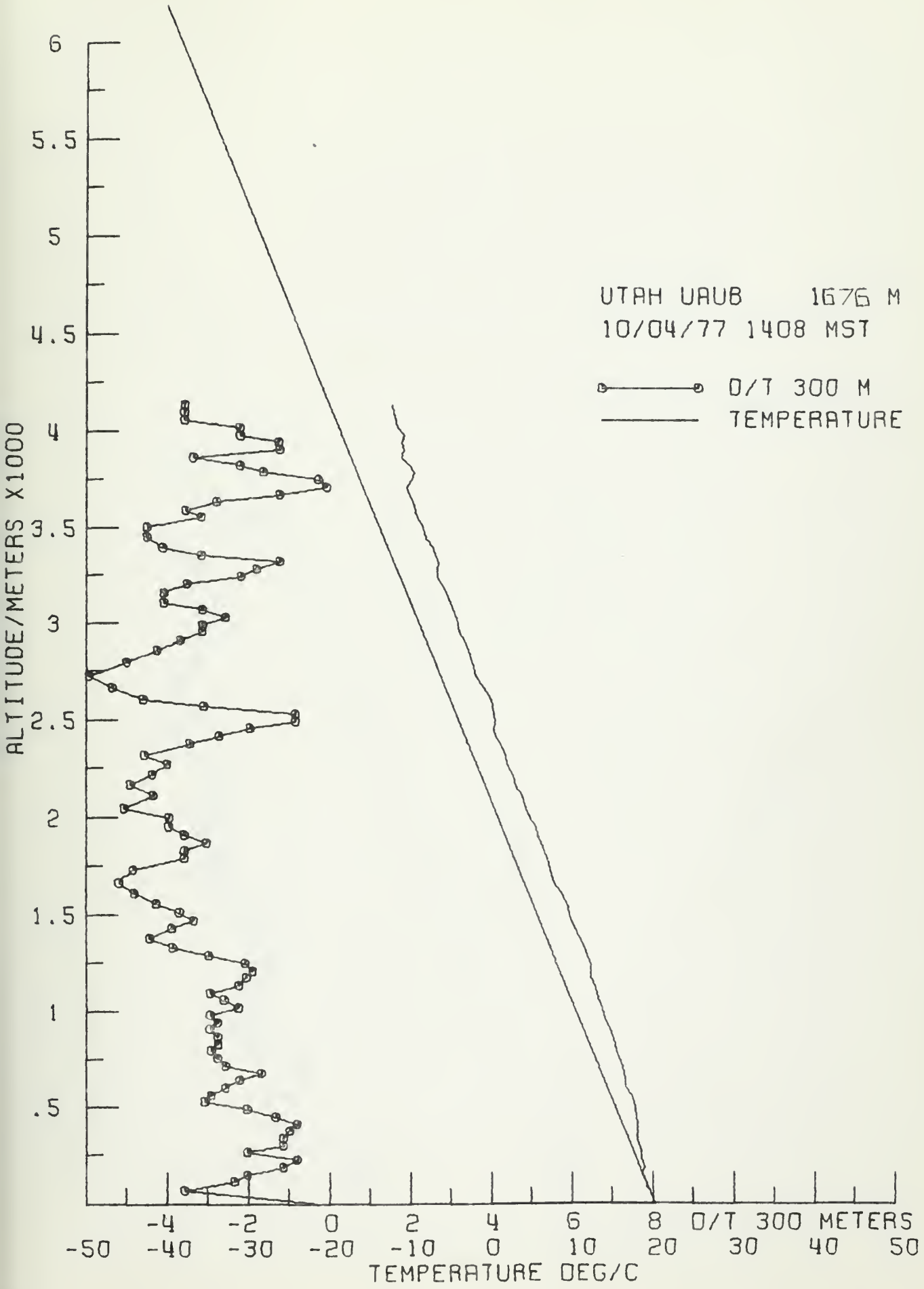

UTAH UAUB 1676 M
10/02/77 0820 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

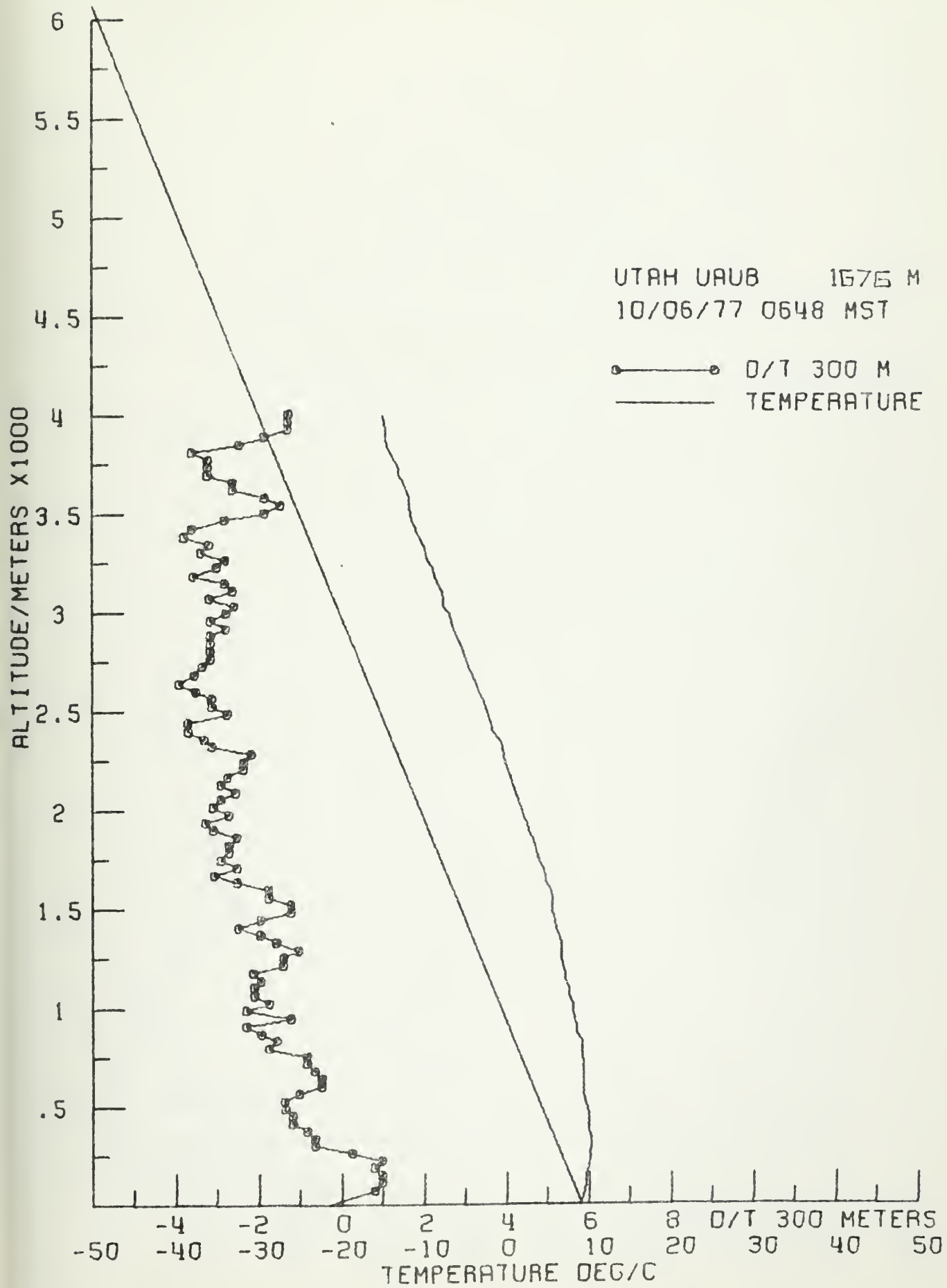

UTAH UAUB 1676 M
10/02/77 1355 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/02/77 1355 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/04/77 0726 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/04/77 0726 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/04/77 1408 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C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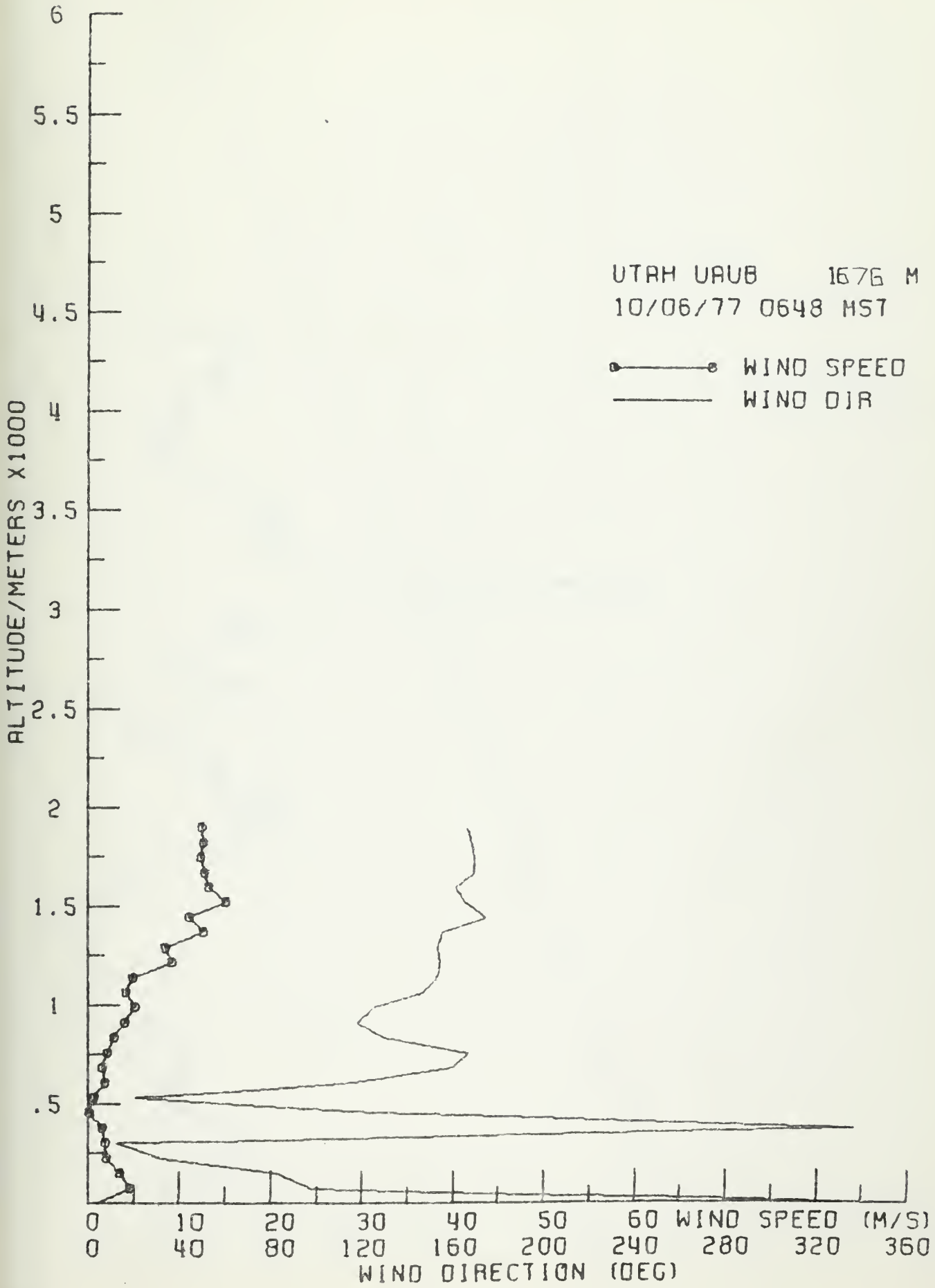
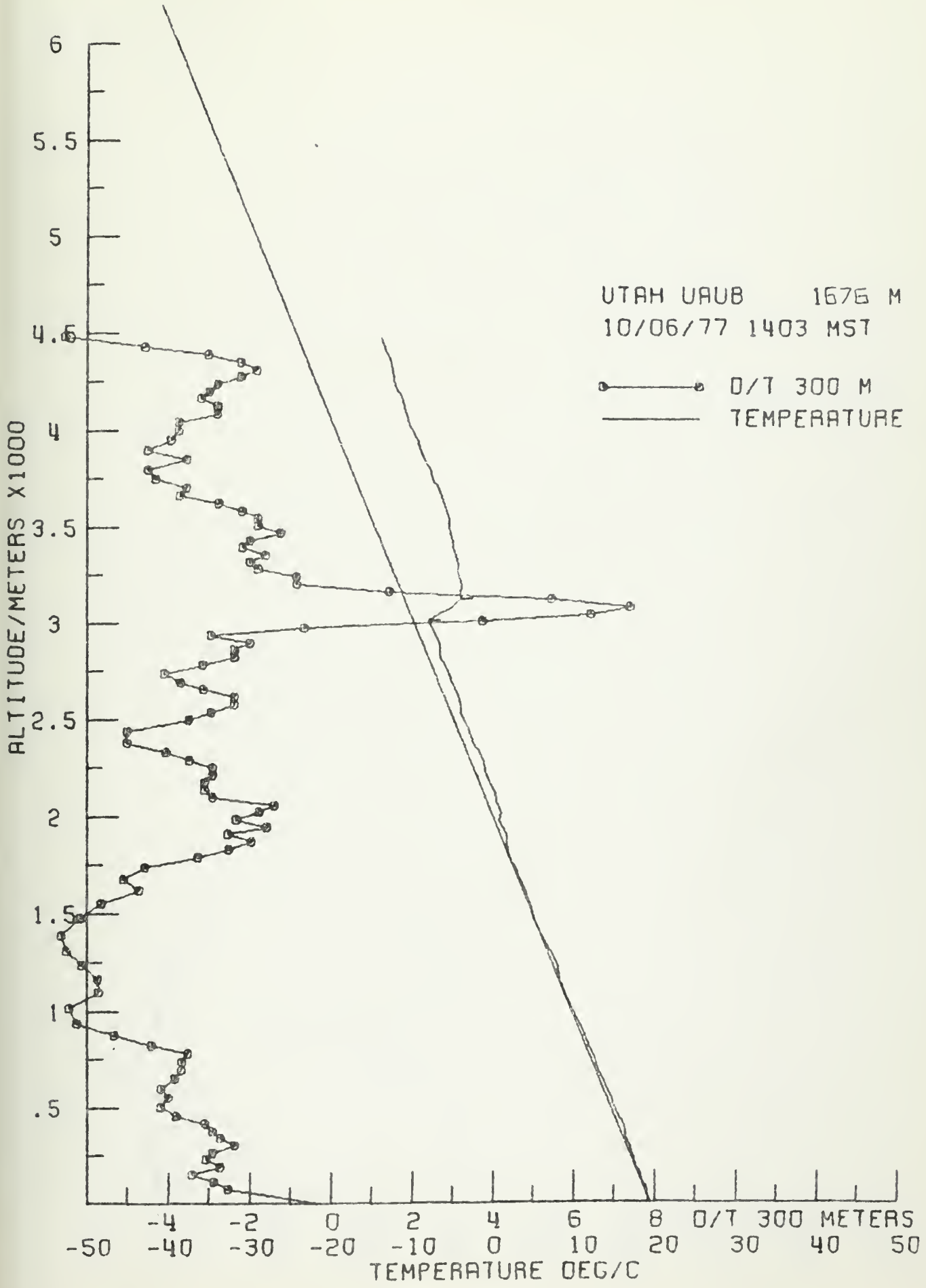
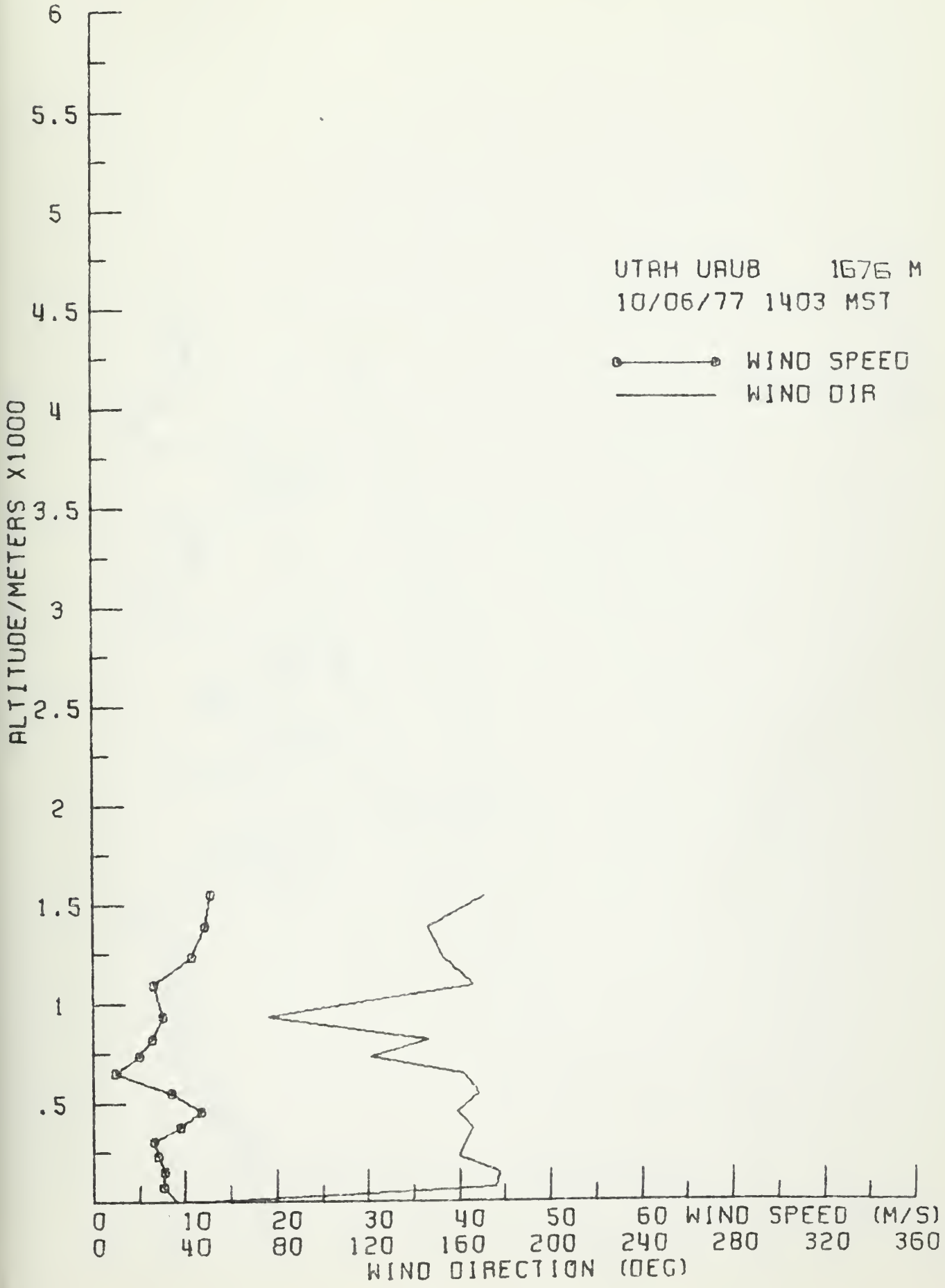
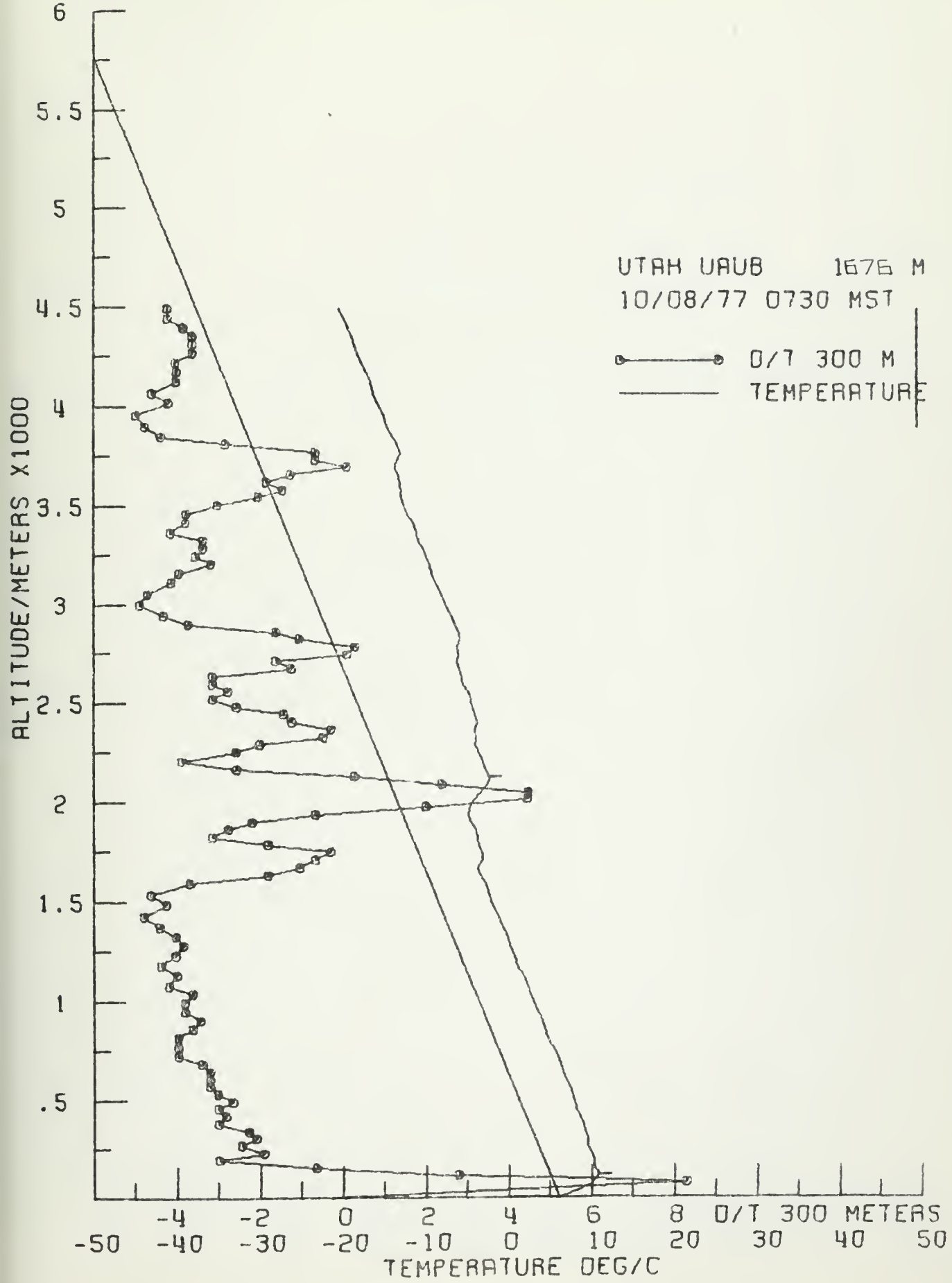
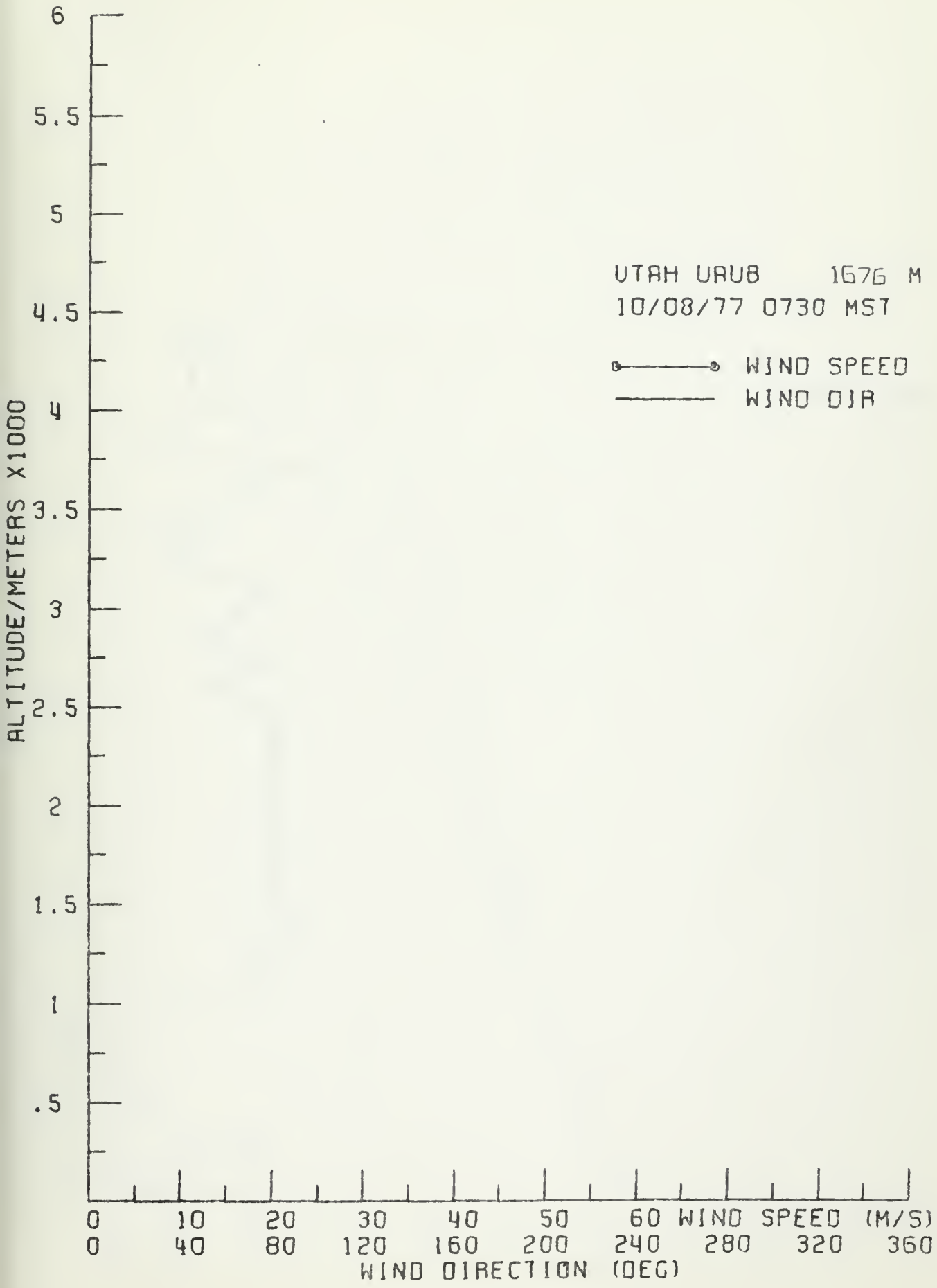
10/06/77 0648 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C

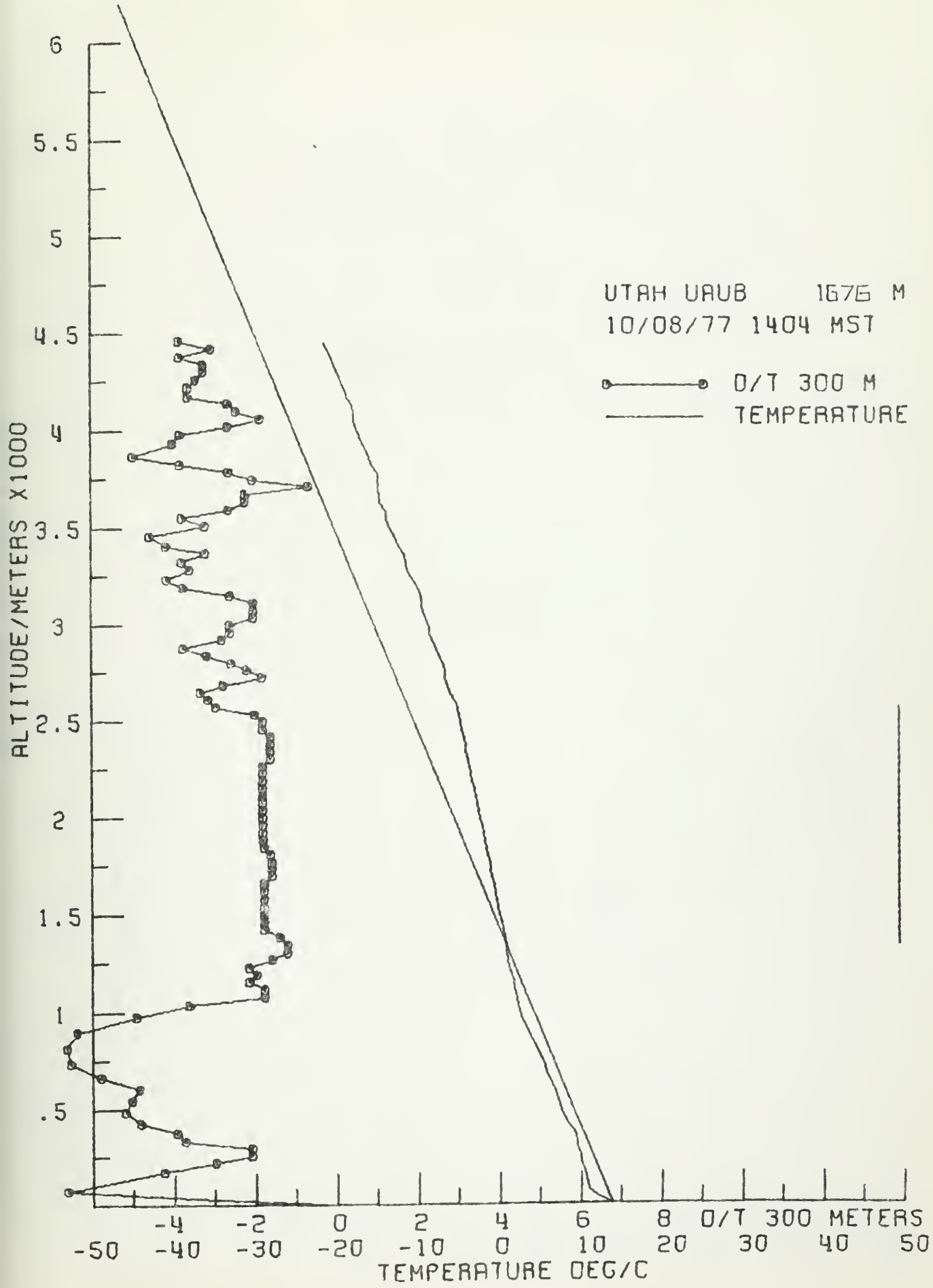

UTAH UAUB 1676 M
10/06/77 0648 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/06/77 1403 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/06/77 1403 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/08/77 0730 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/08/77 0730 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1675 M
10/08/77 1404 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
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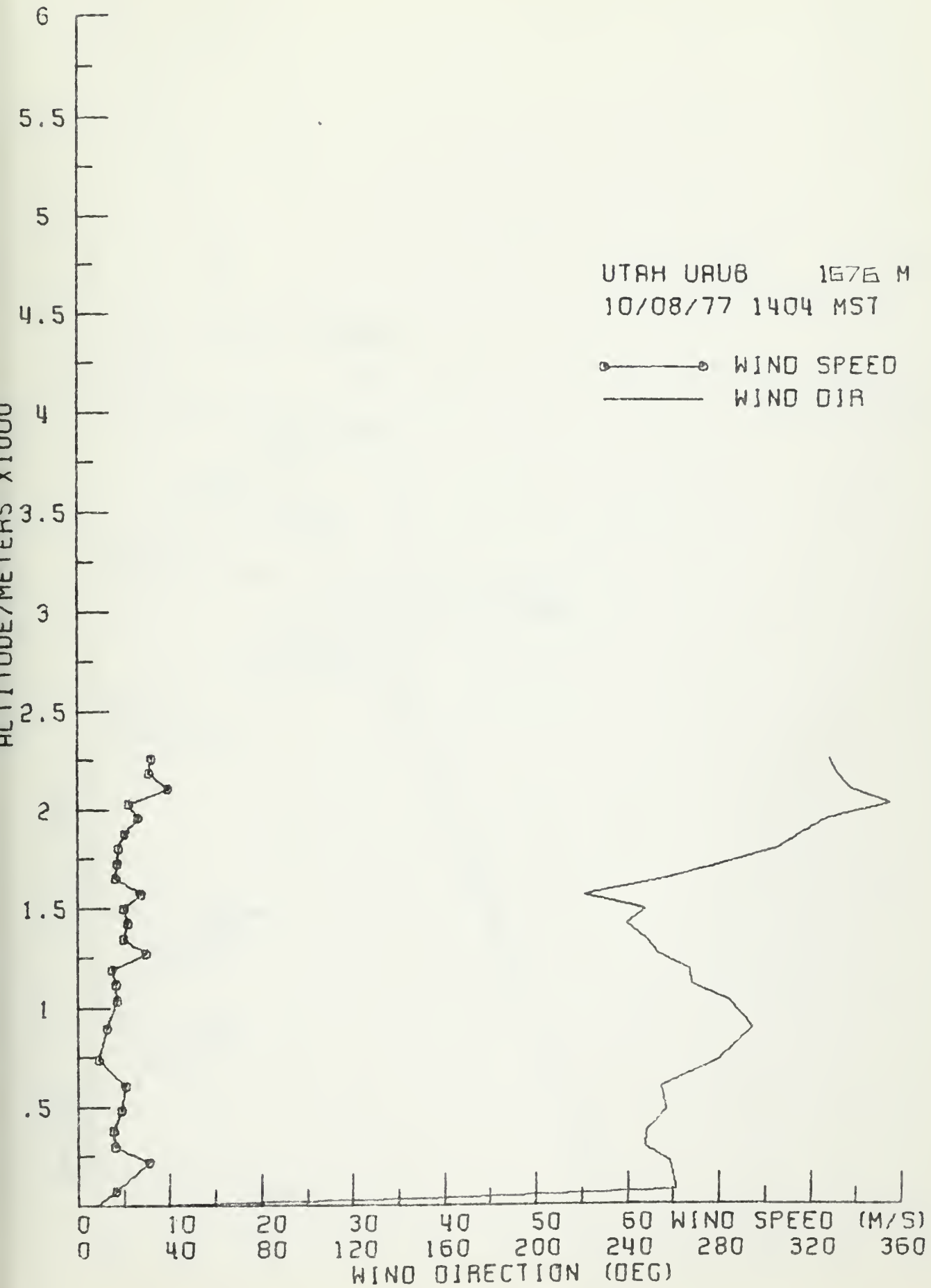
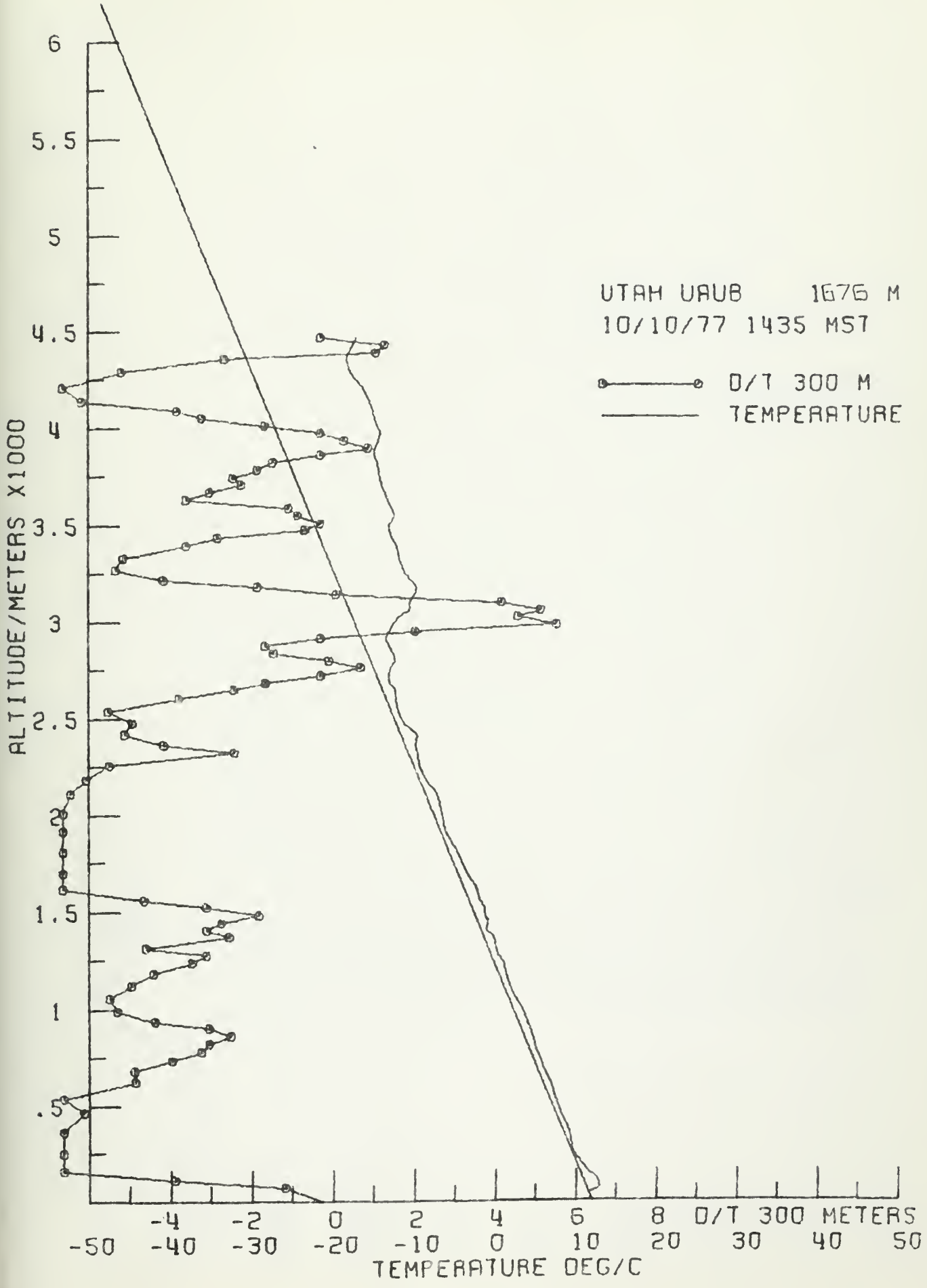
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/08/77 1404 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/10/77 1435 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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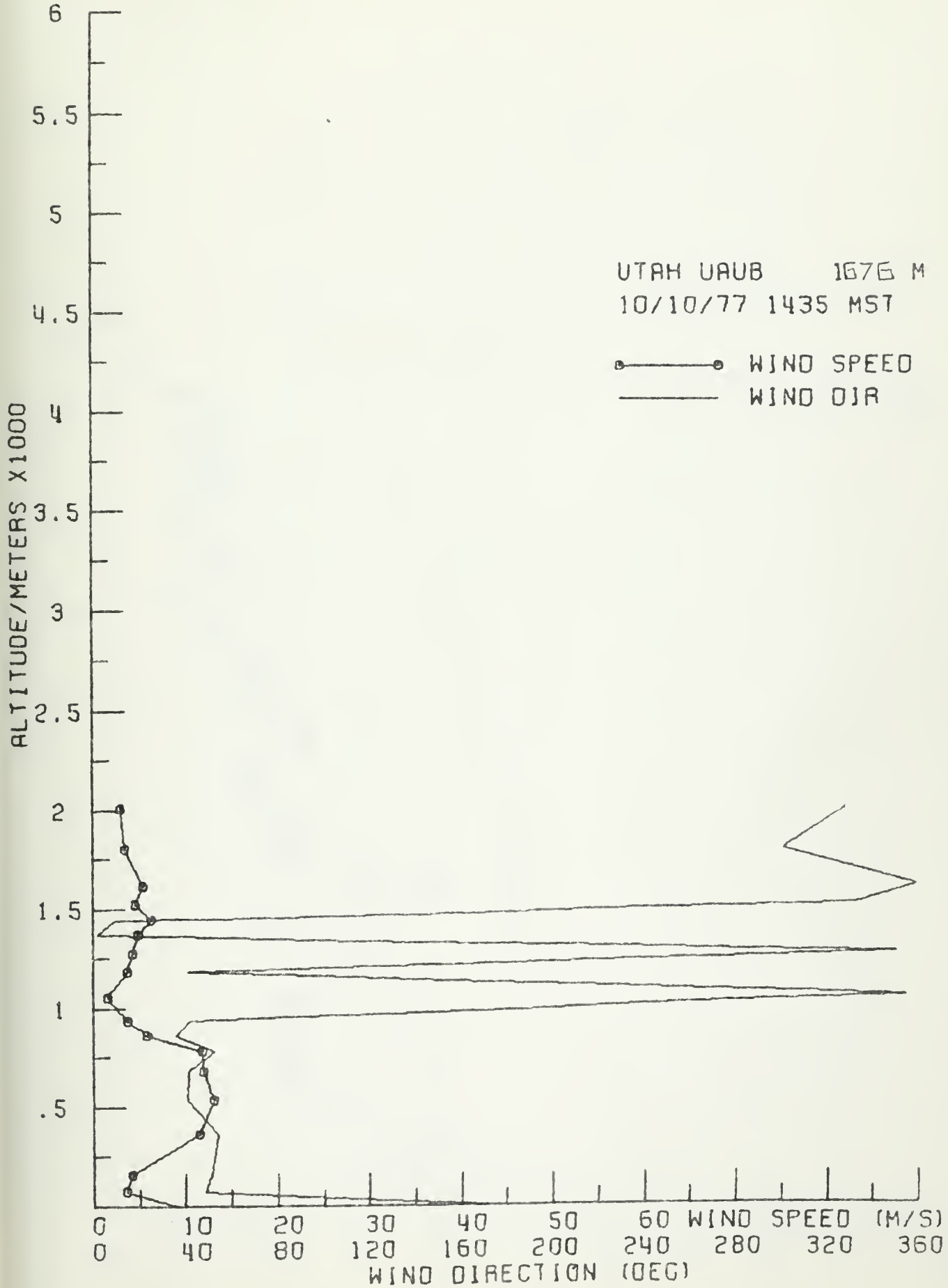
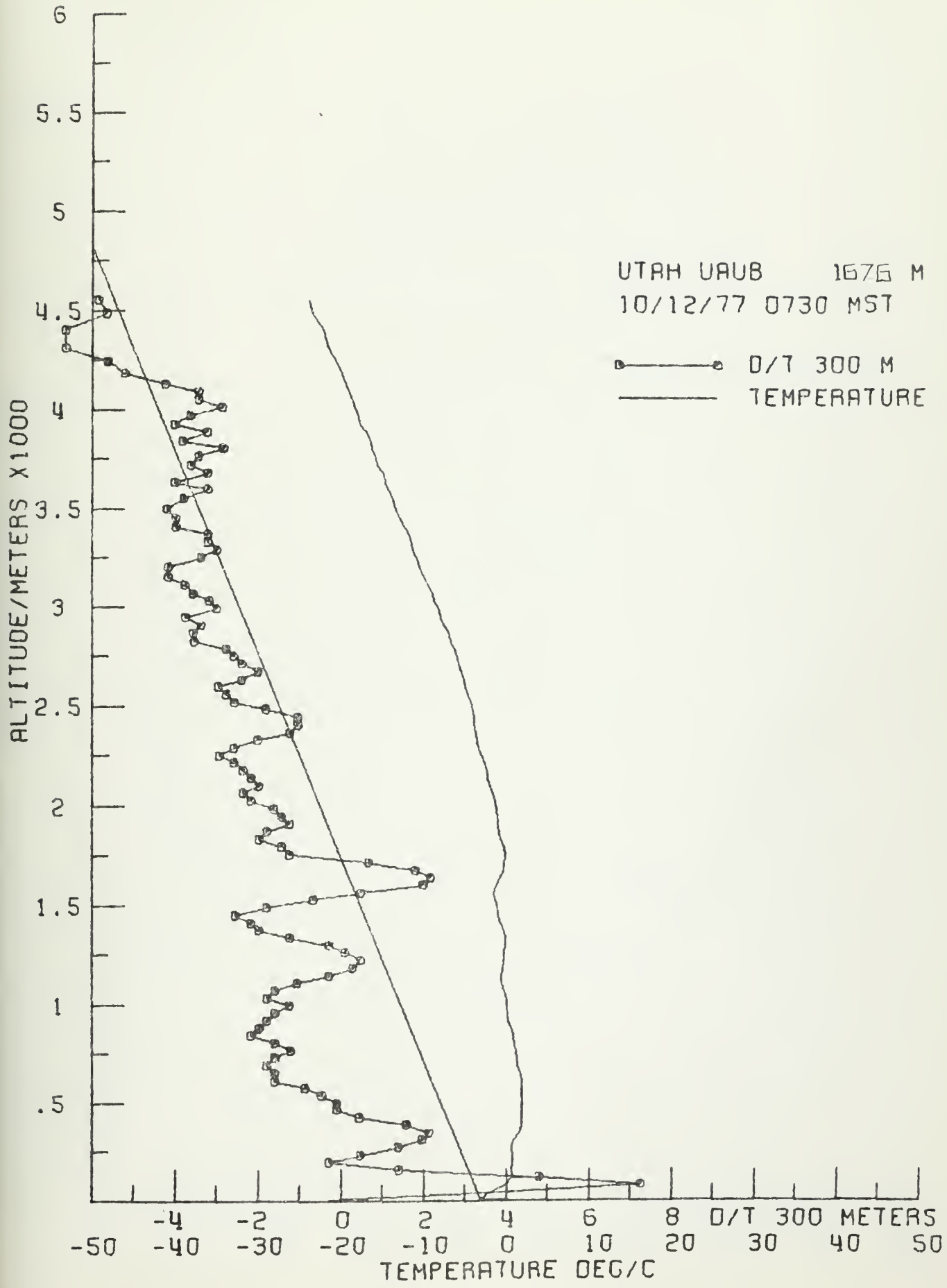
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/10/77 1435 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/12/77 0730 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5
4.5
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3.5
3
2.5
2
1.5
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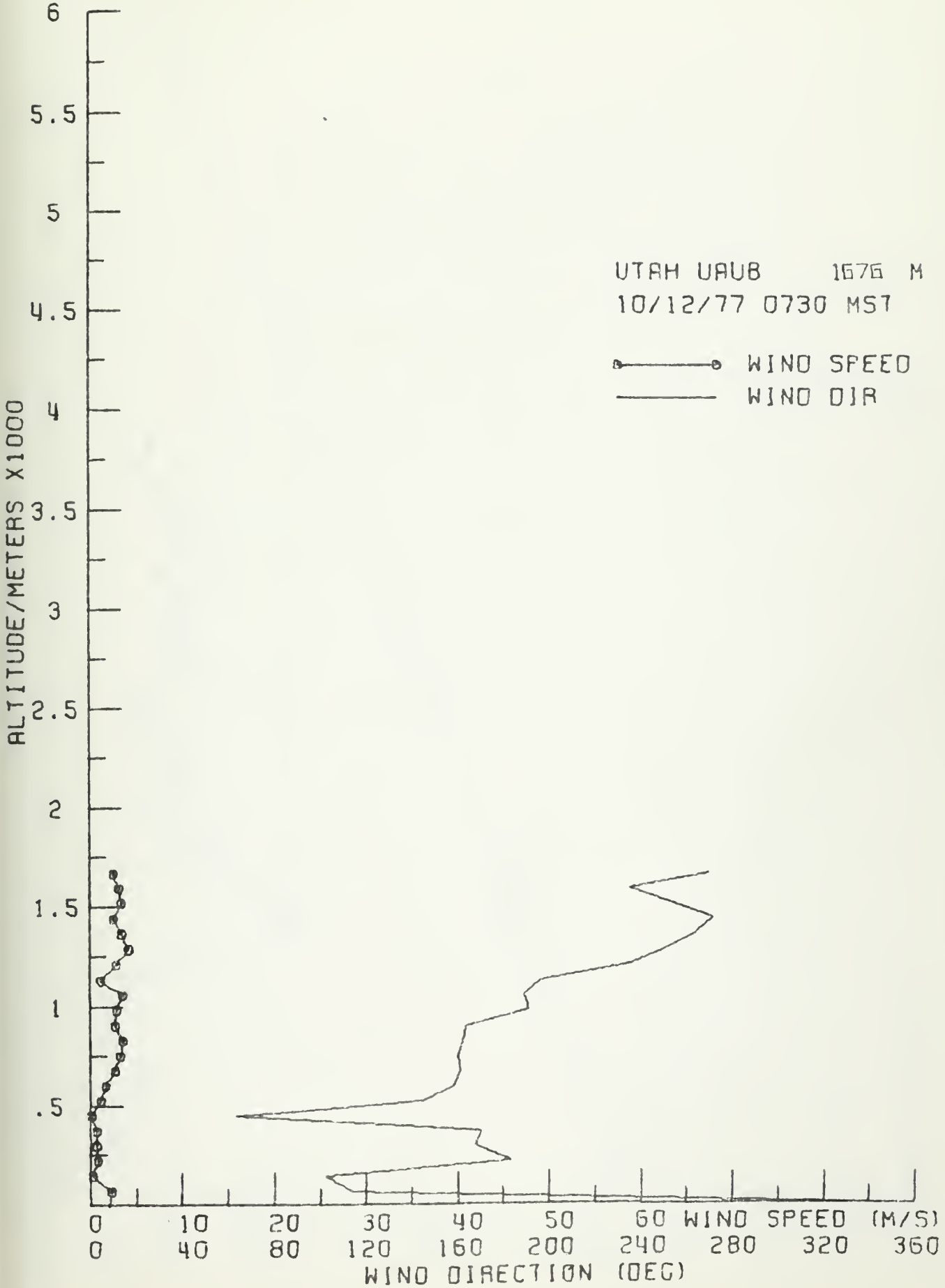
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/12/77 0730 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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5.5
5
4.5
4
3.5
3
2.5
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1.5
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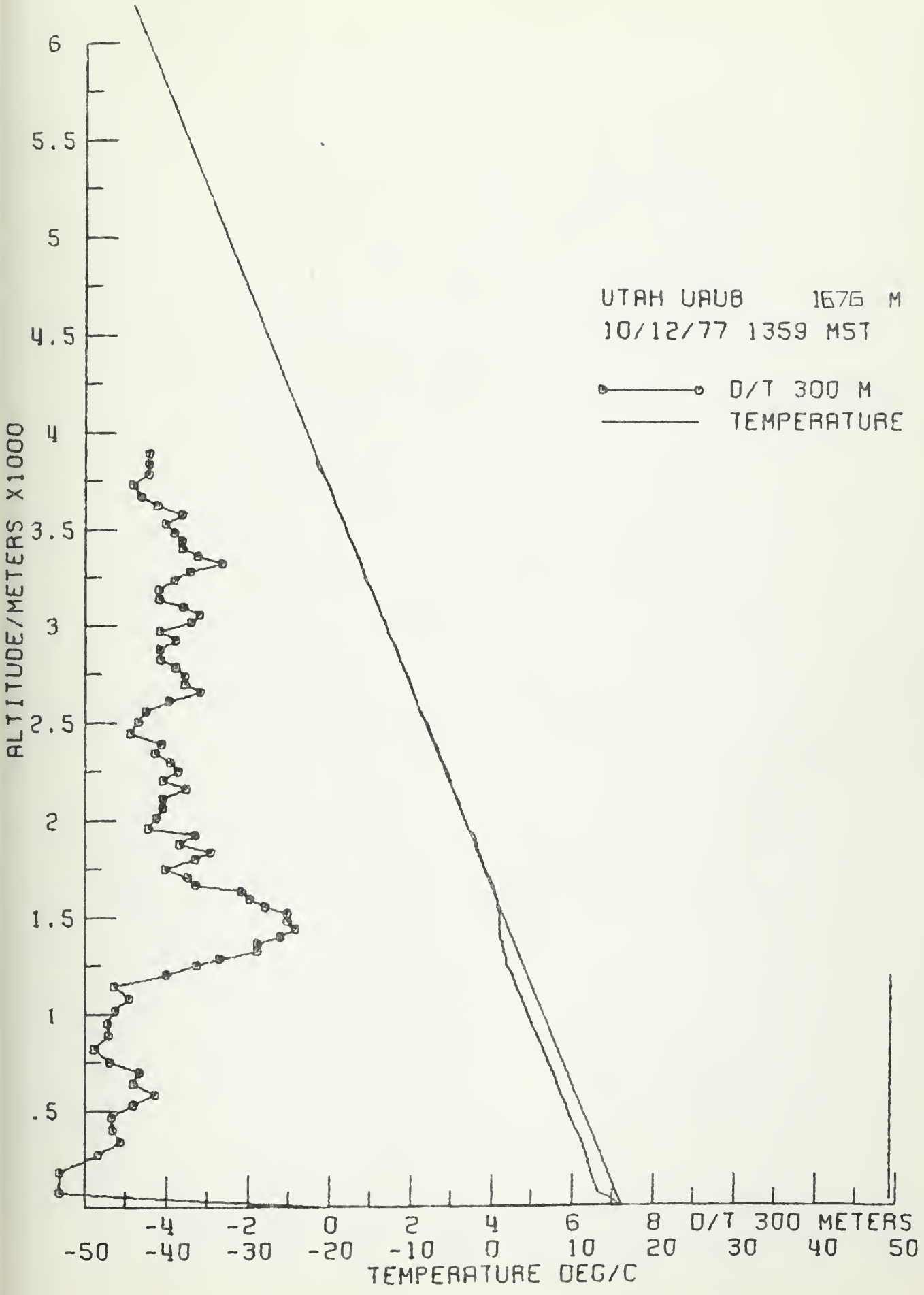
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/12/77 1359 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4.5
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3.5
3
2.5
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1.5
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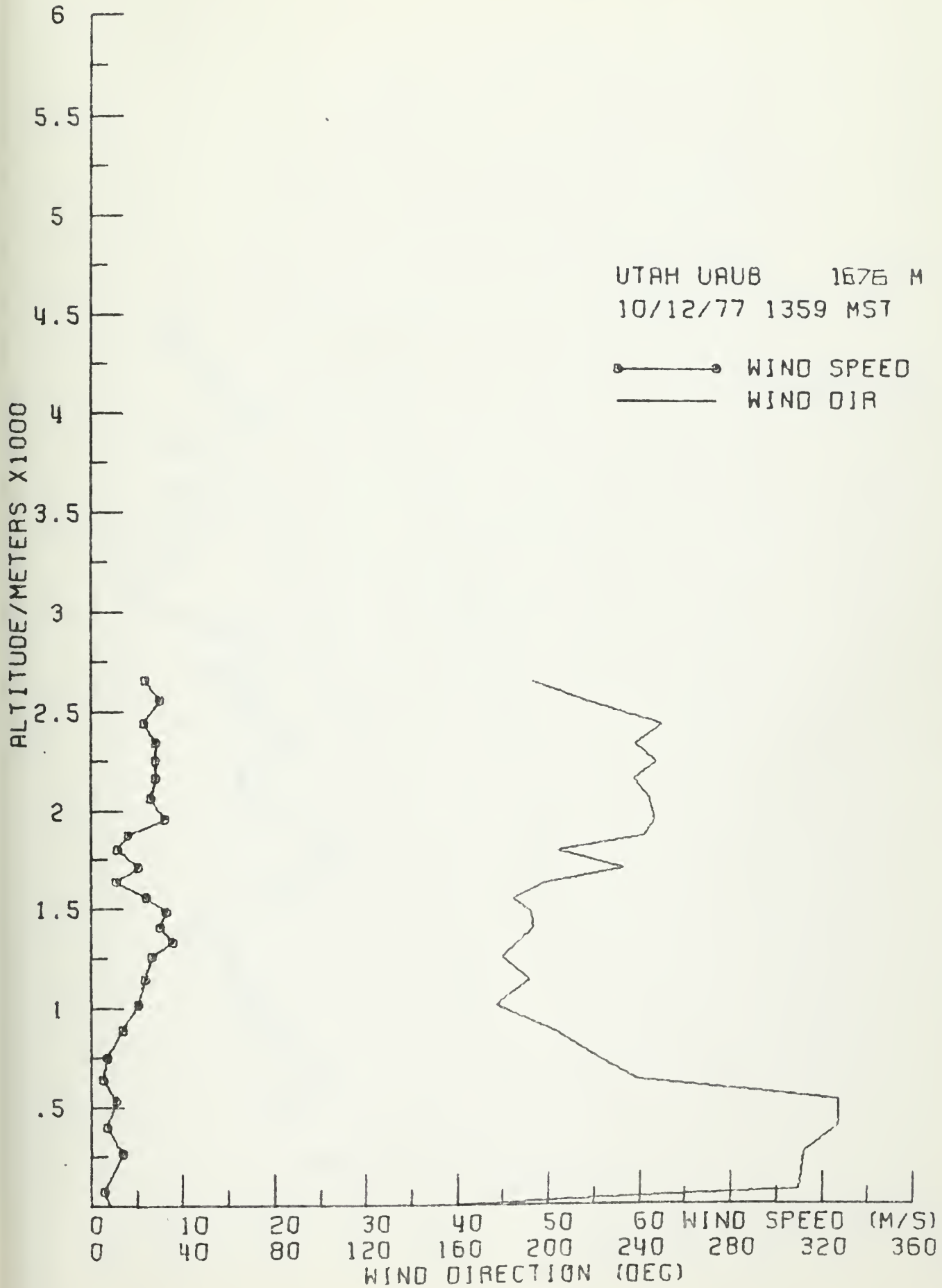
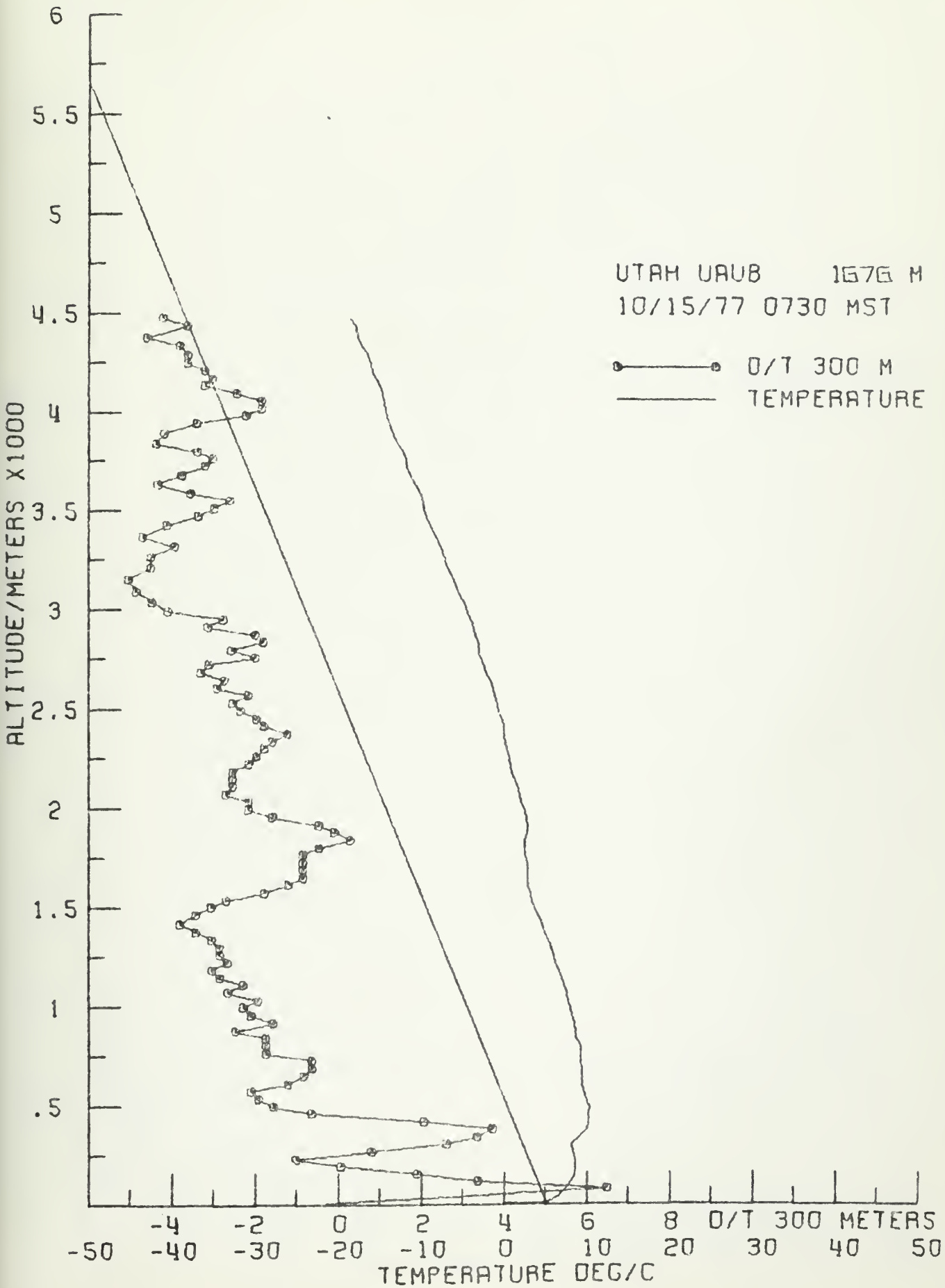
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/12/77 1359 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/15/77 0730 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
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4.5
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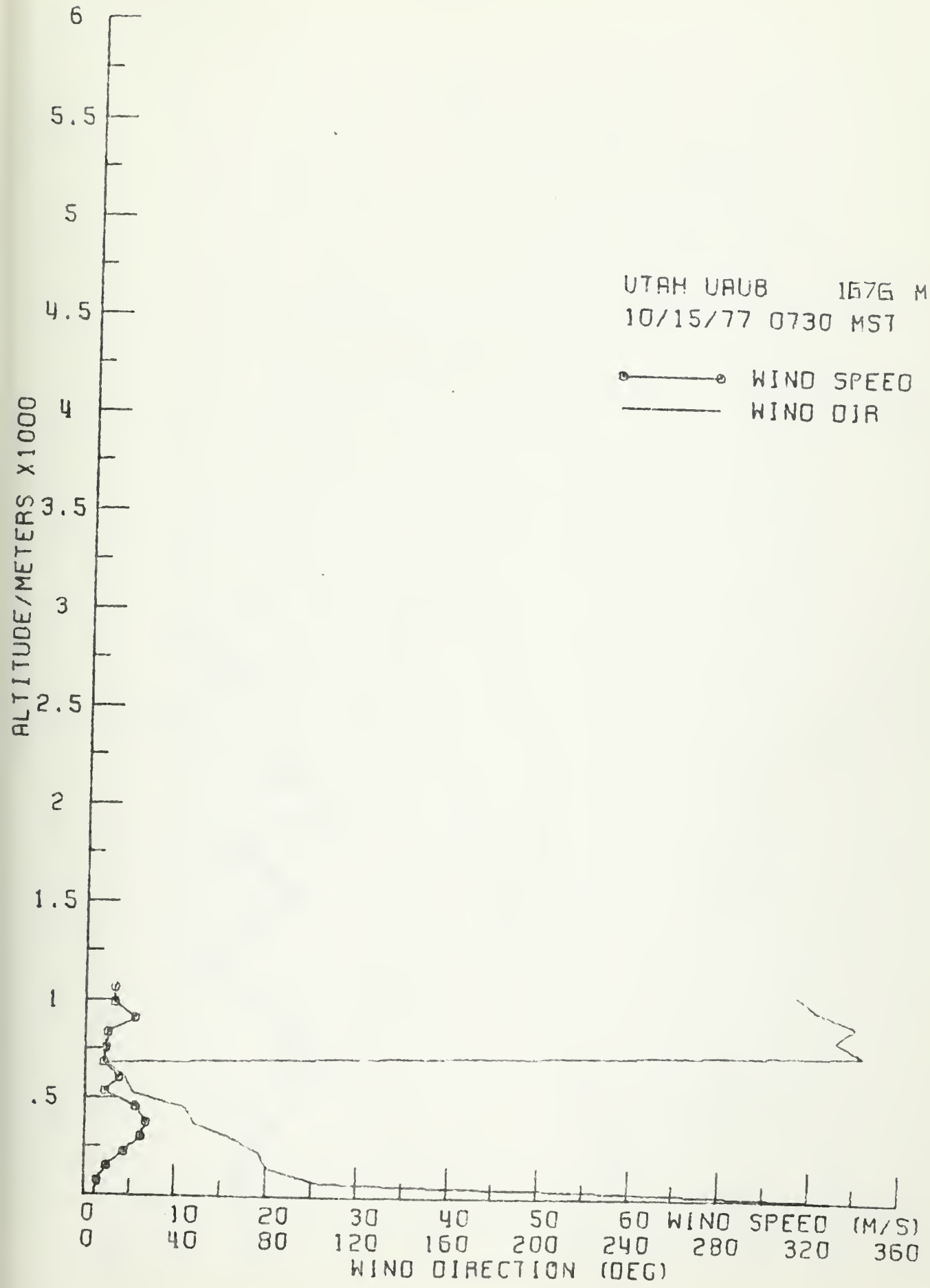
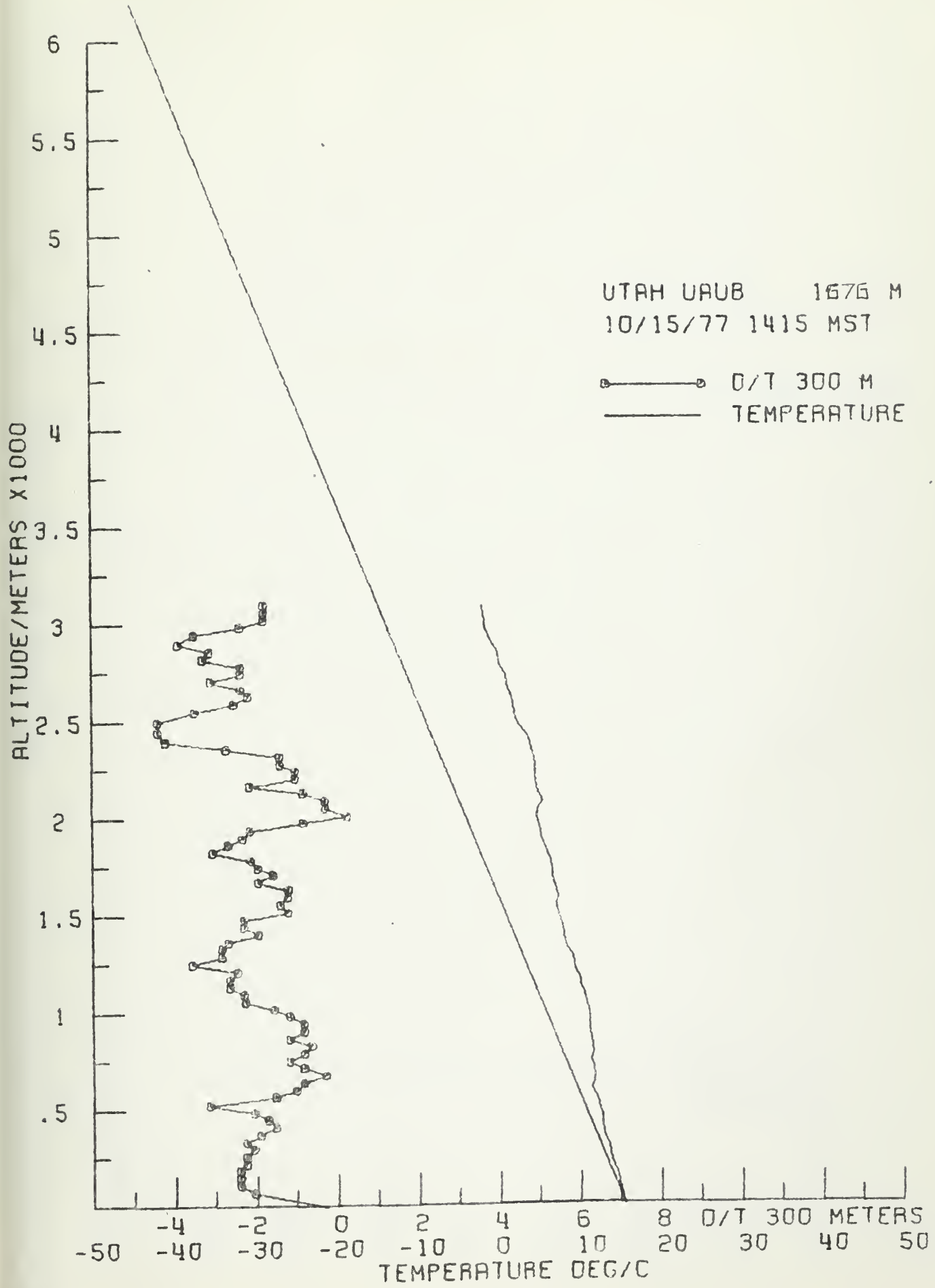
3.5
3
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
O/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/15/77 0730 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/15/77 1415 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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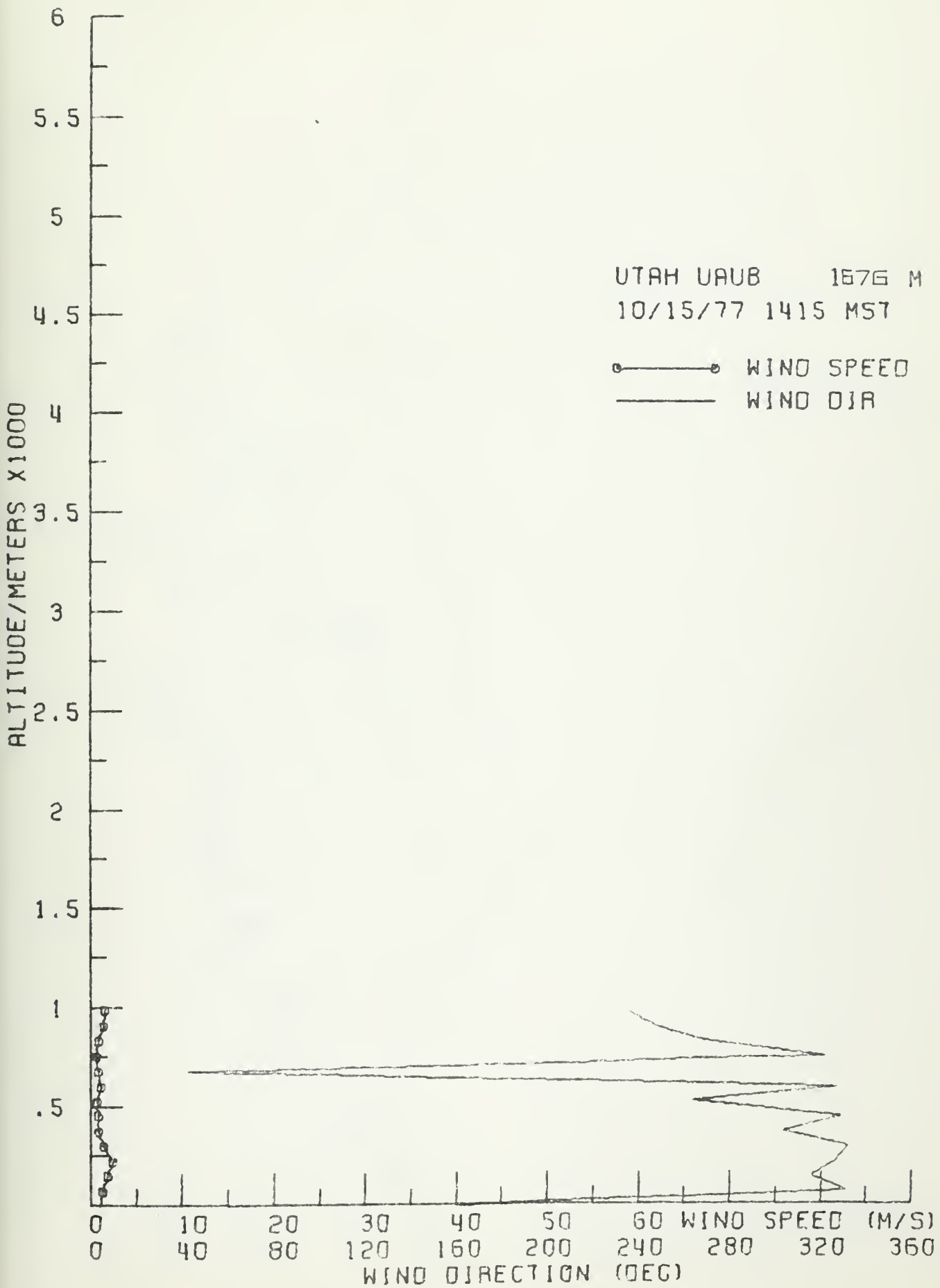
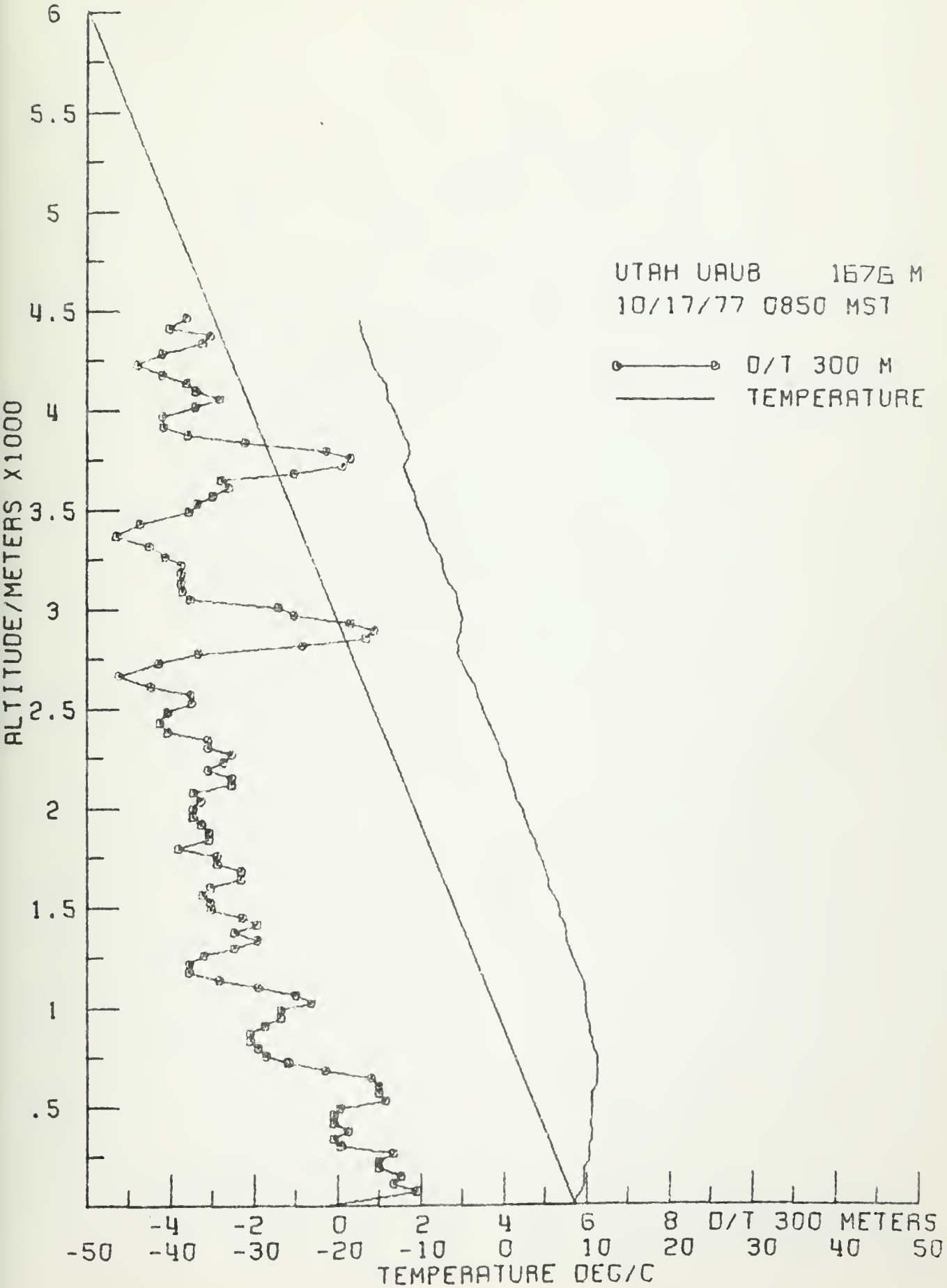
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/15/77 1415 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAU8 1676 M
10/17/77 0850 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
5
4.5
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3.5
3
2.5
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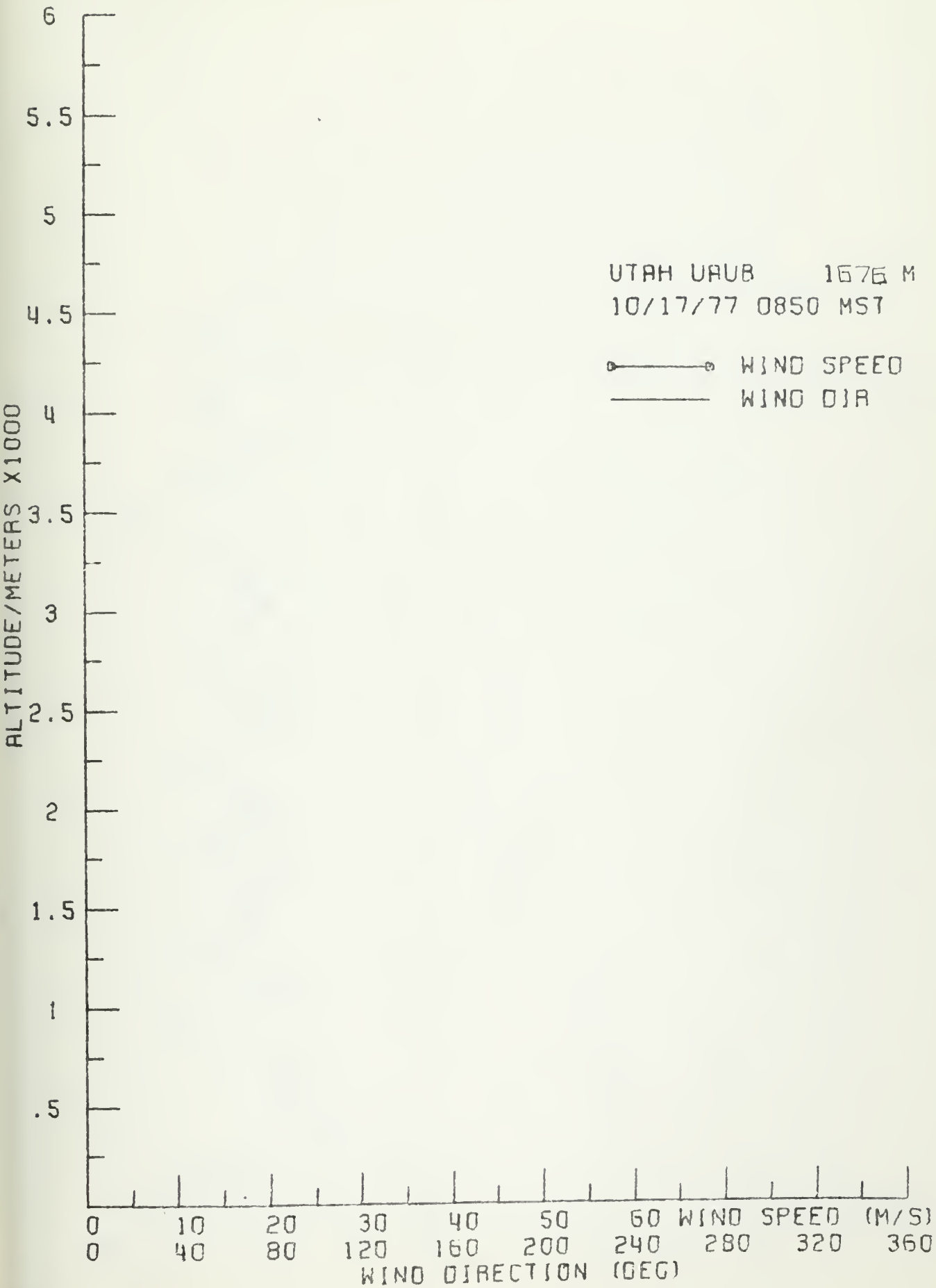
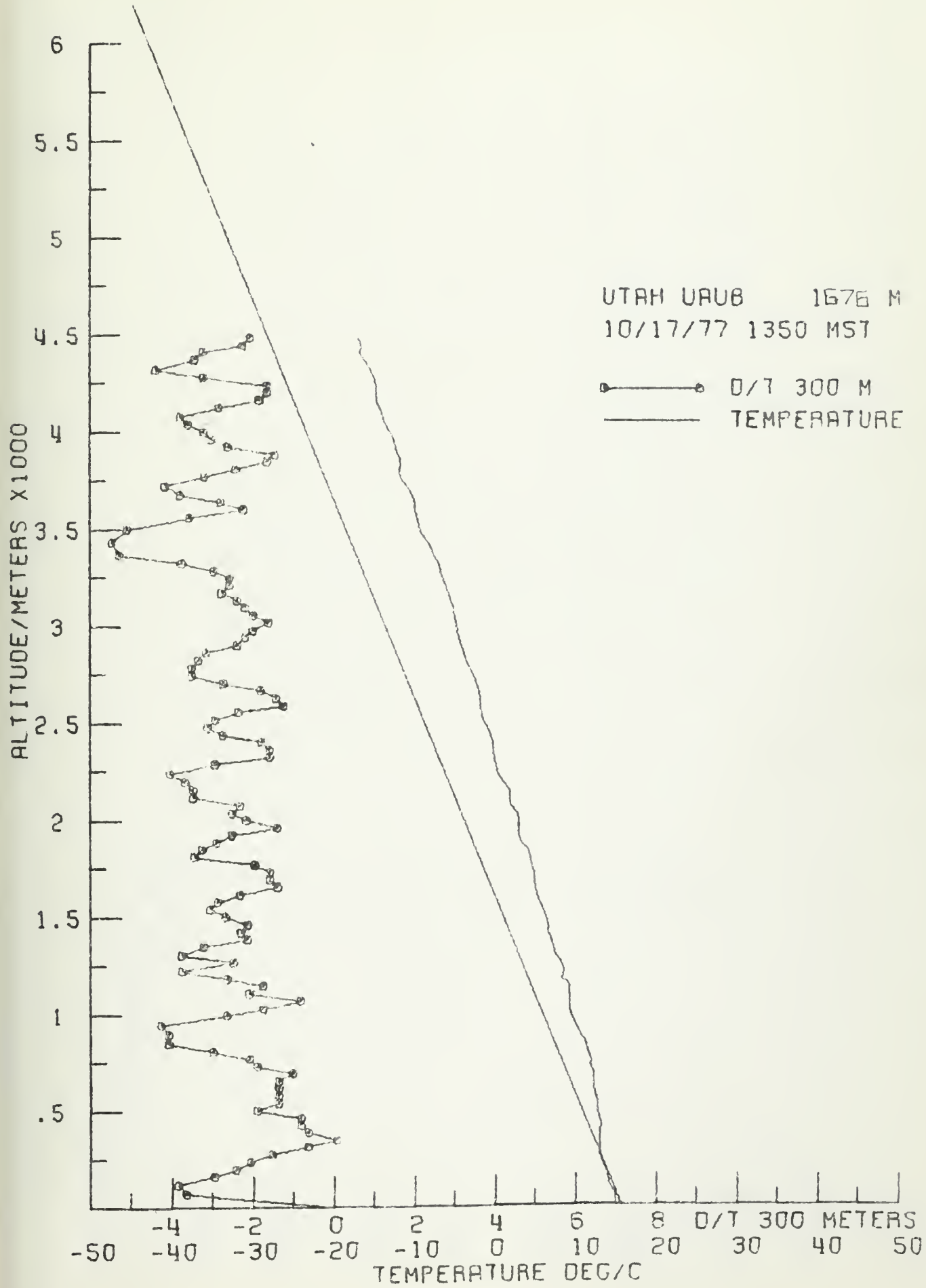
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/17/77 0850 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/17/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
5
4.5
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3.5
3
2.5
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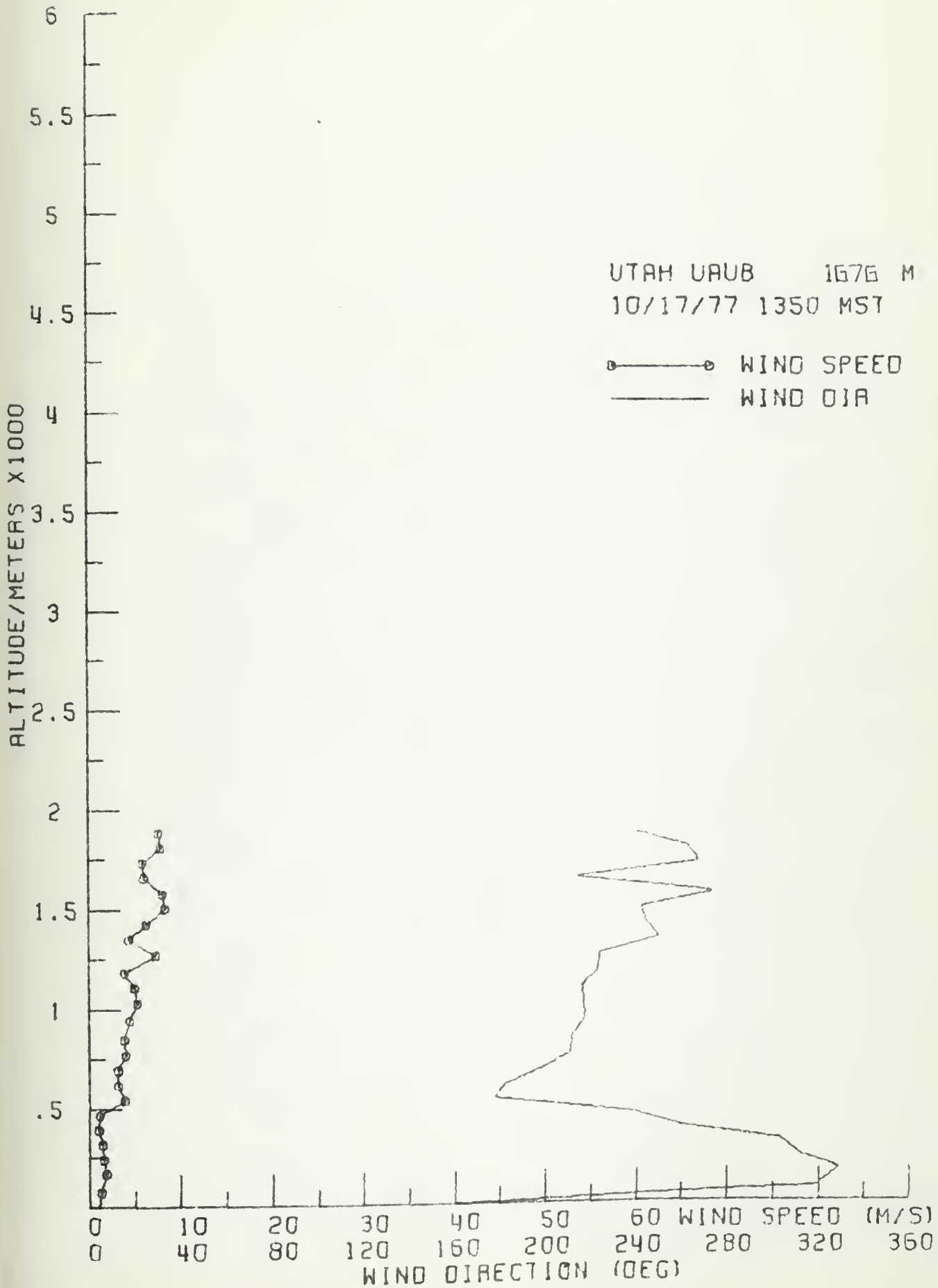
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/17/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
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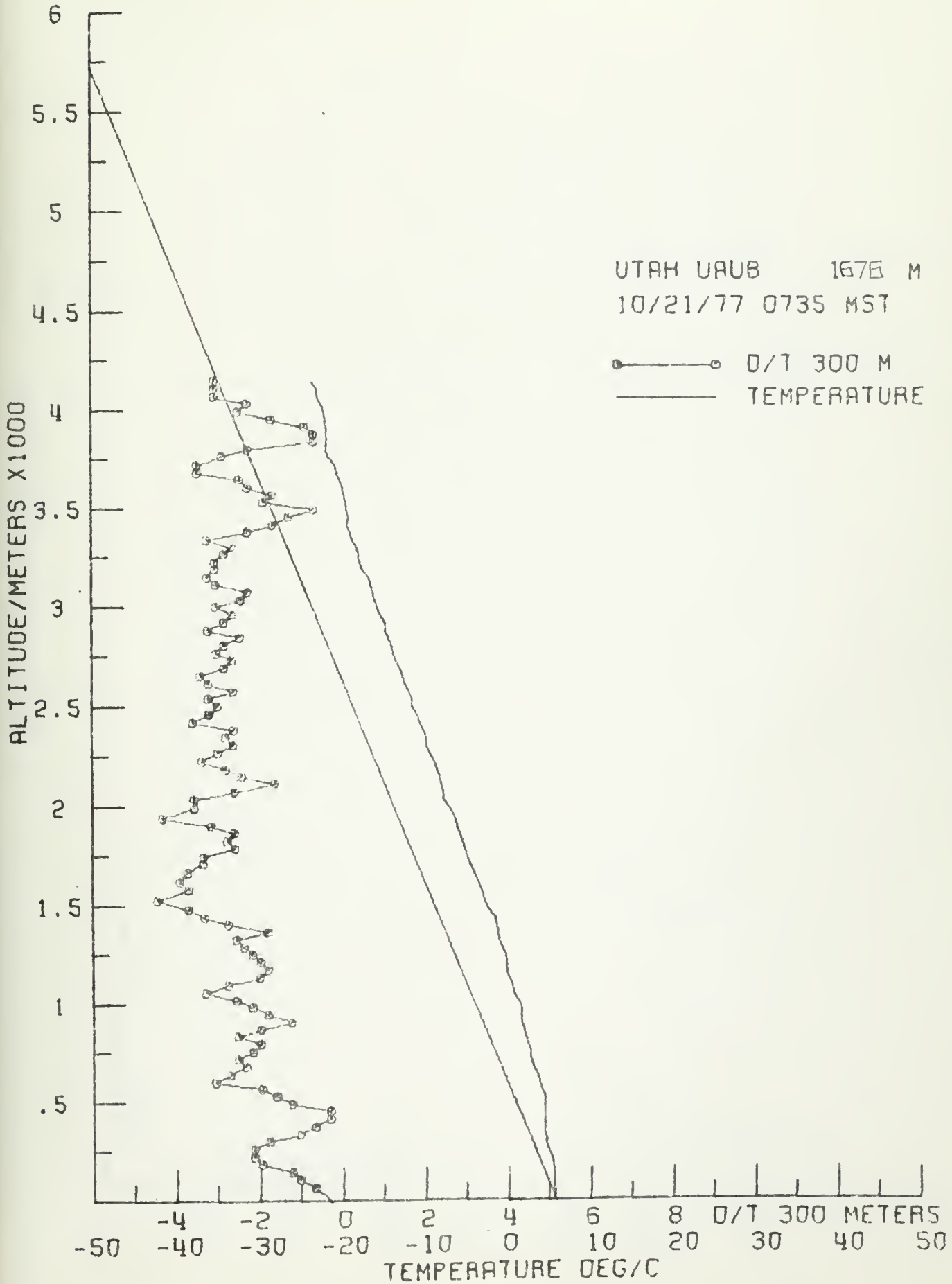
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/21/77 0735 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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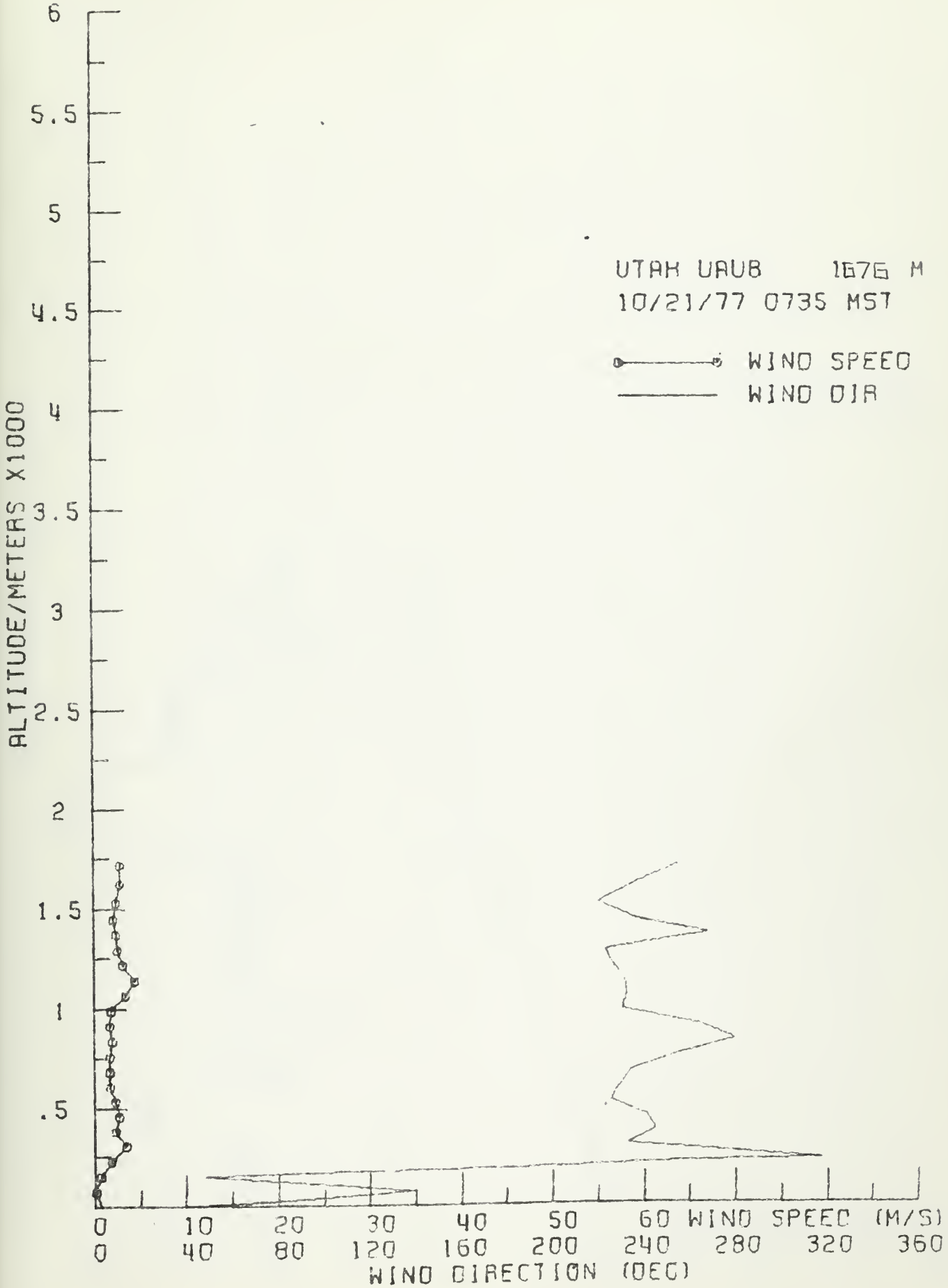
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1675 M
10/21/77 0735 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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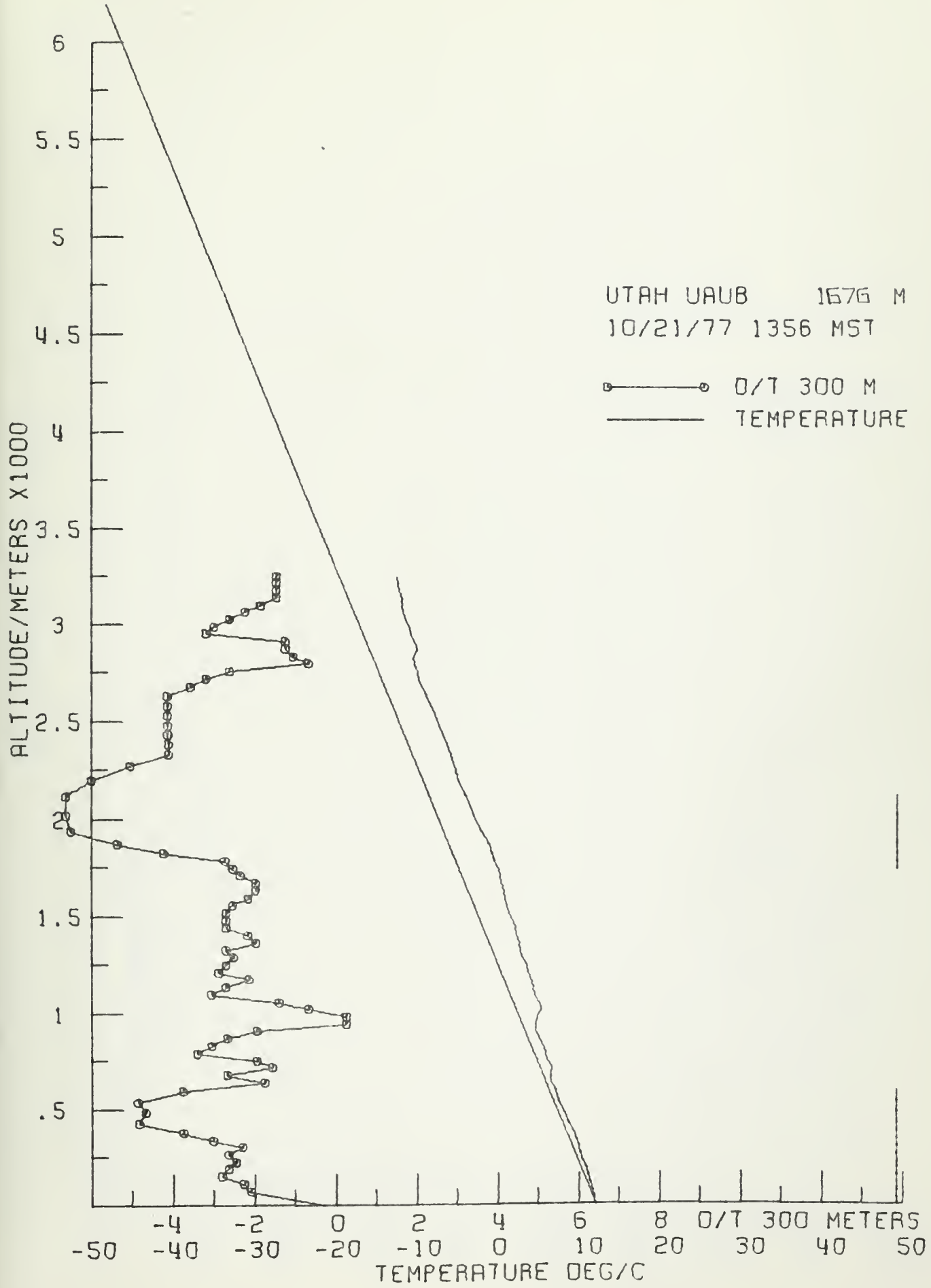
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/21/77 1356 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
5
4.5
4
3.5
3
2.5
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1.5
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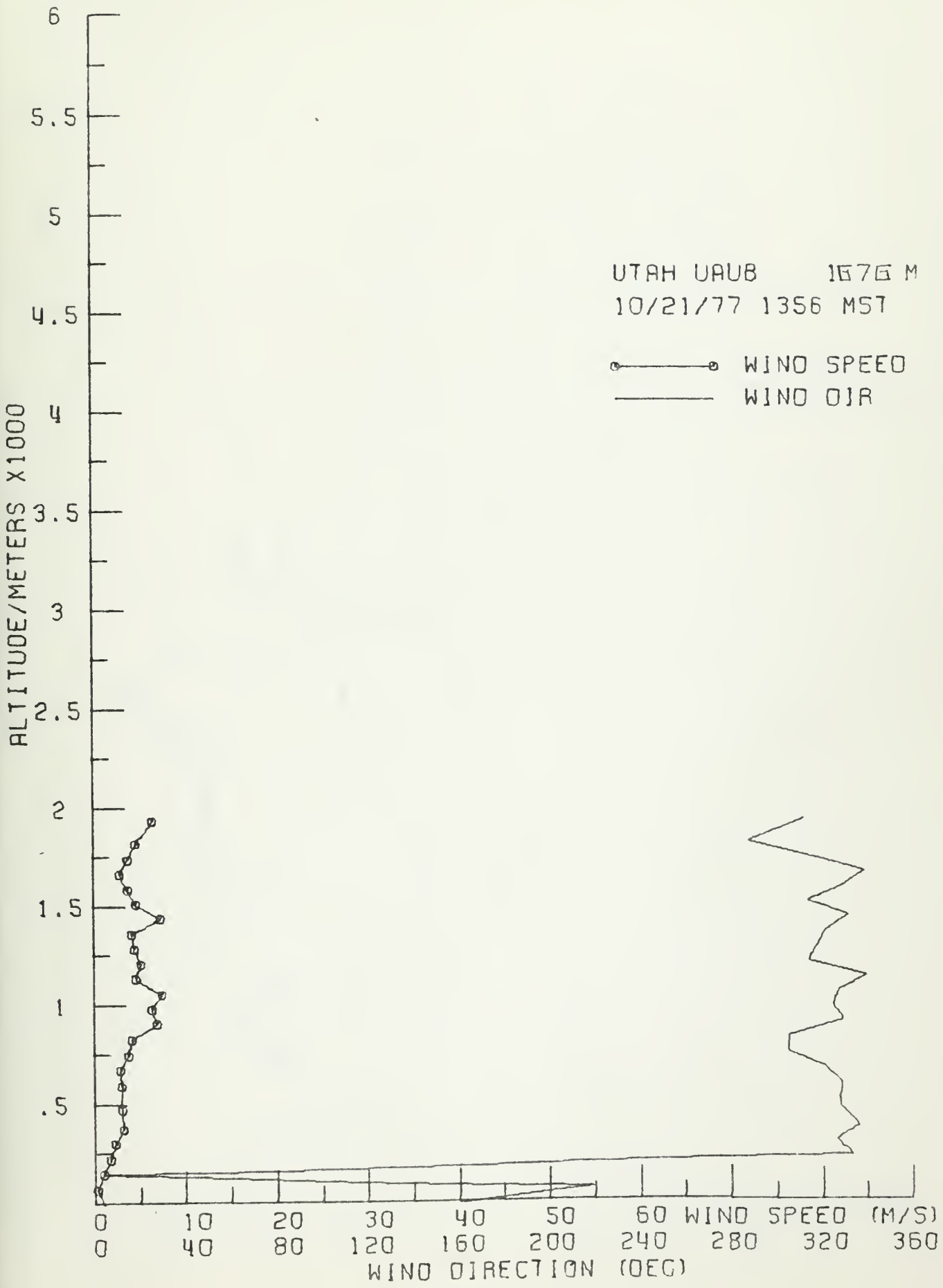
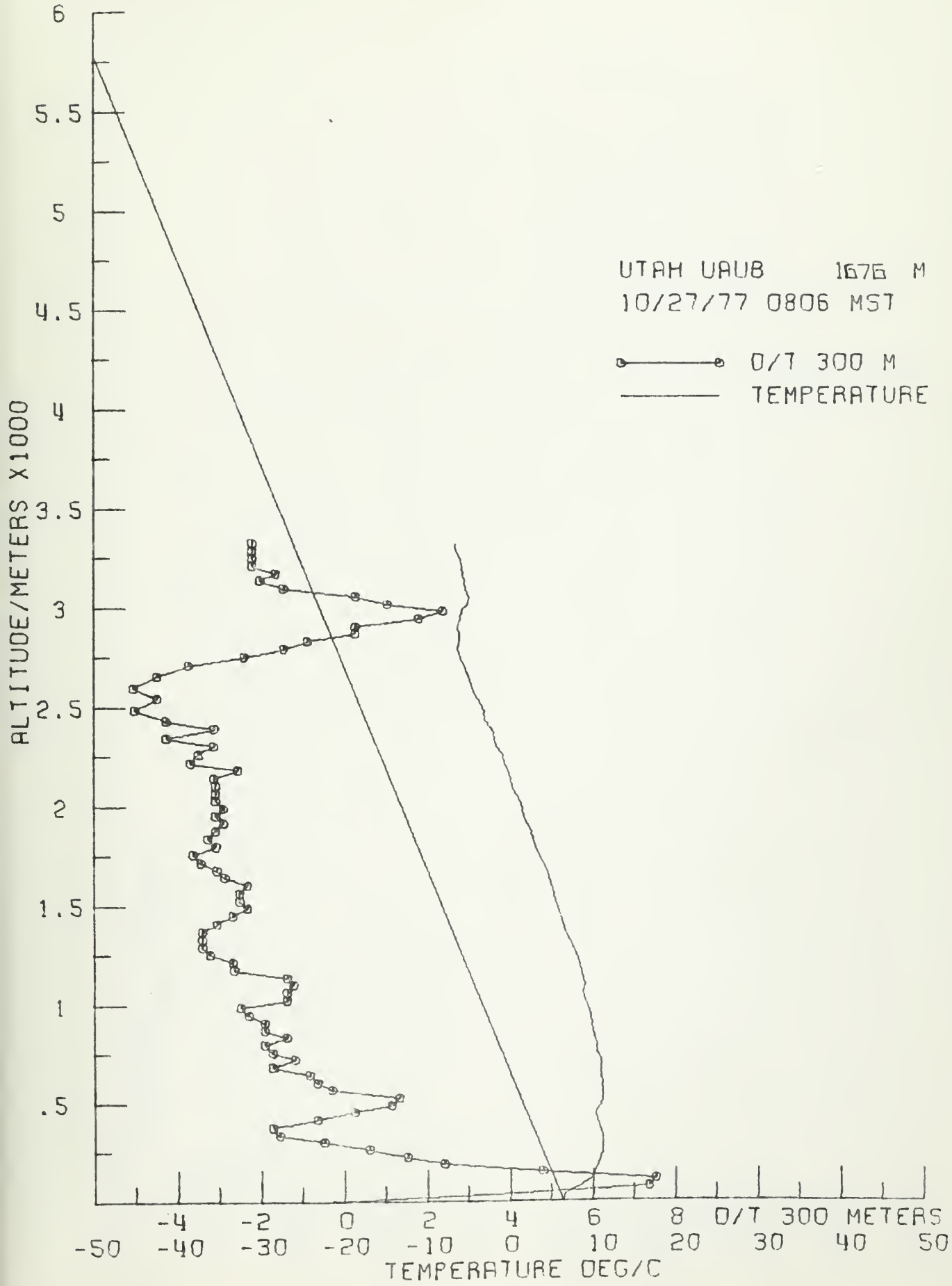
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/21/77 1356 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/27/77 0806 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
5
4.5
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3.5
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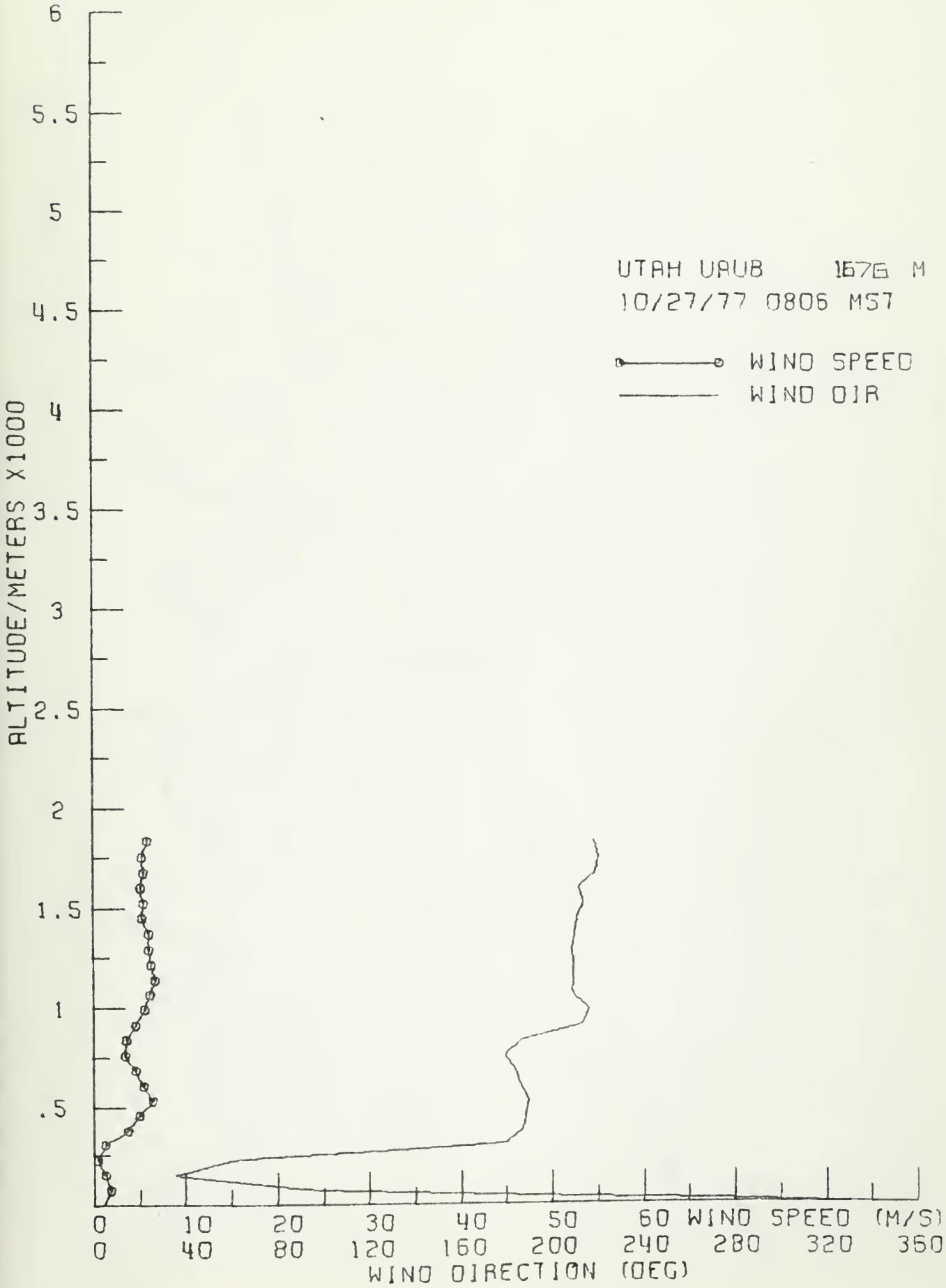
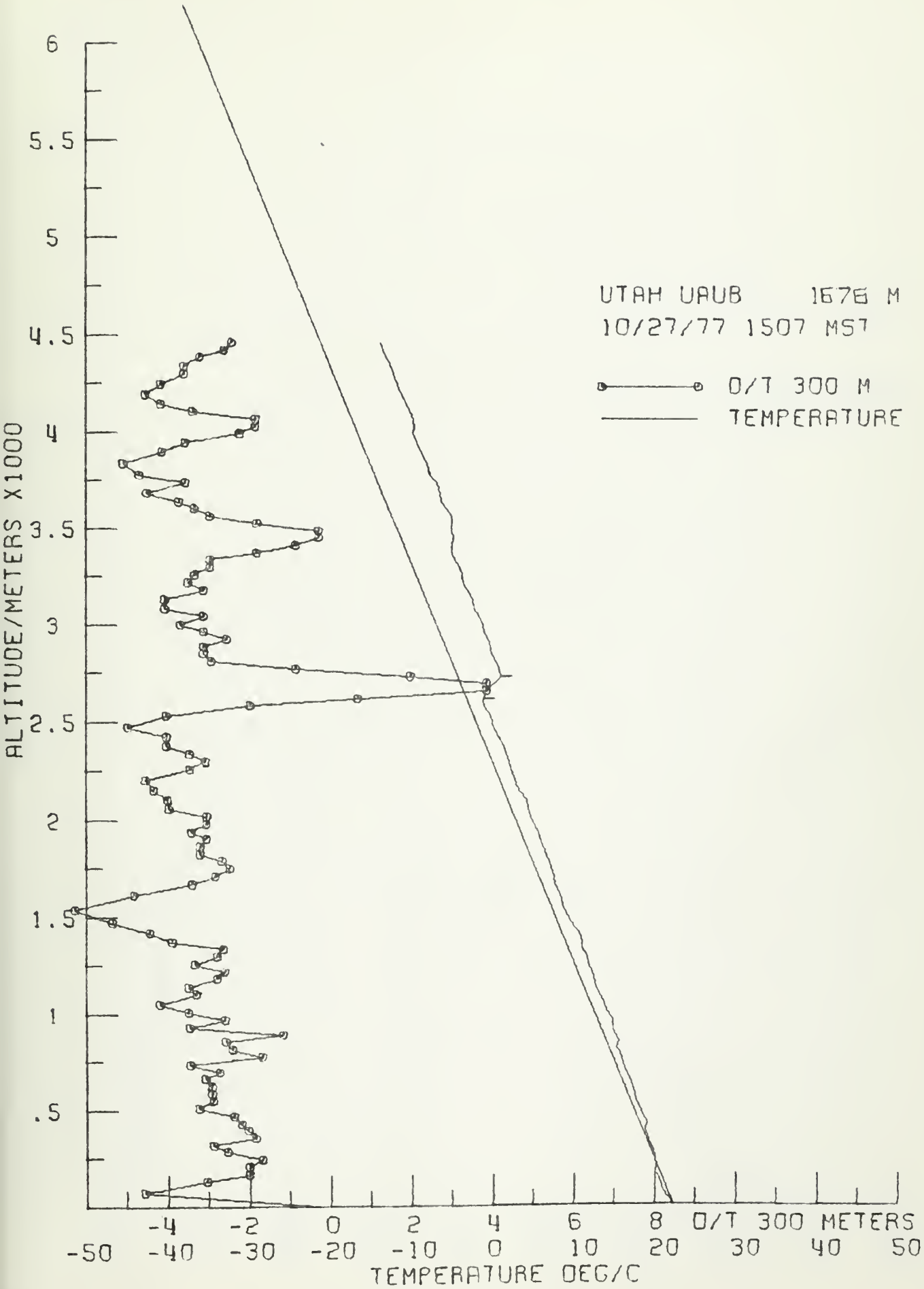
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
O/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/27/77 0806 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/27/77 1507 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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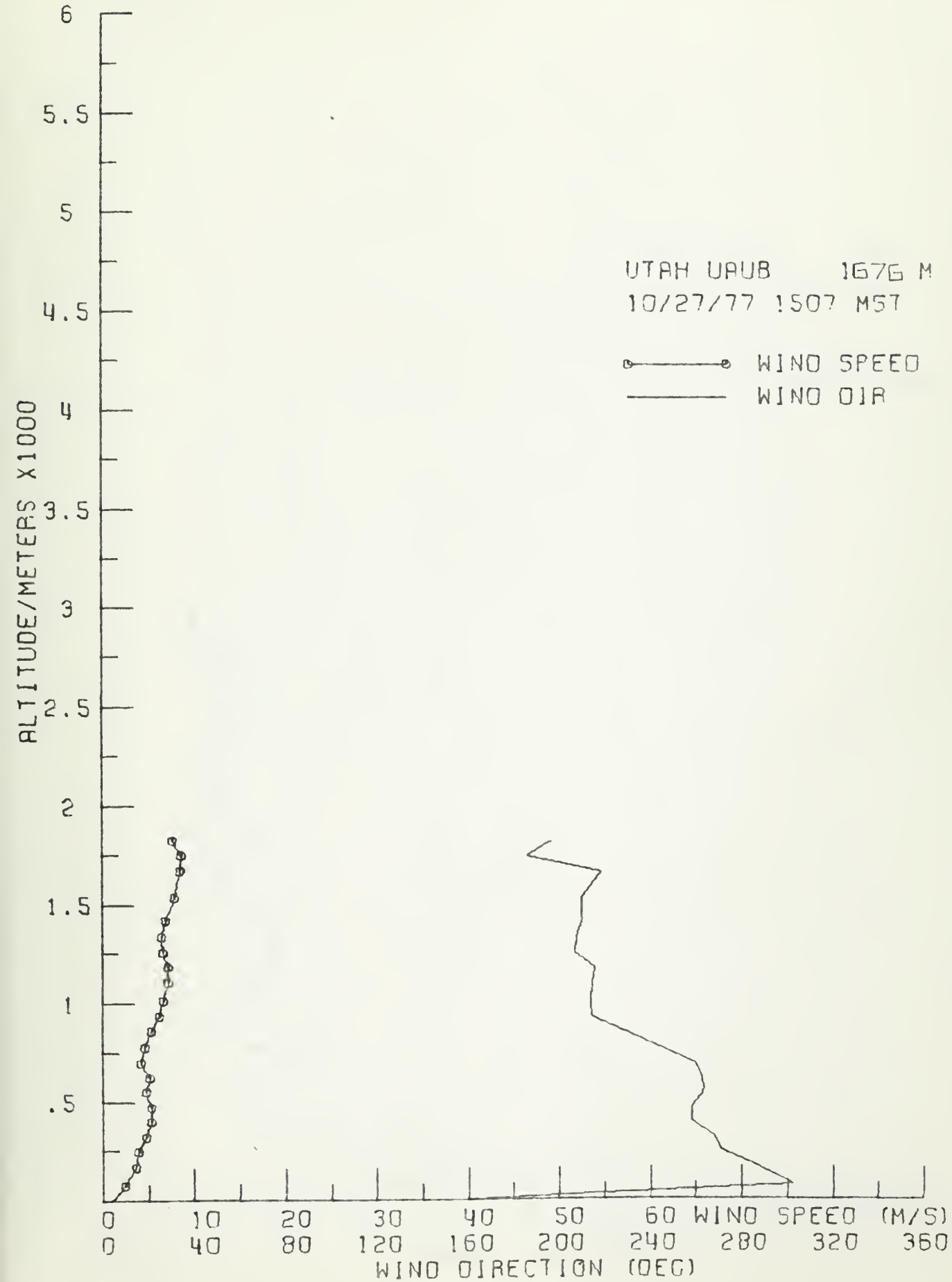
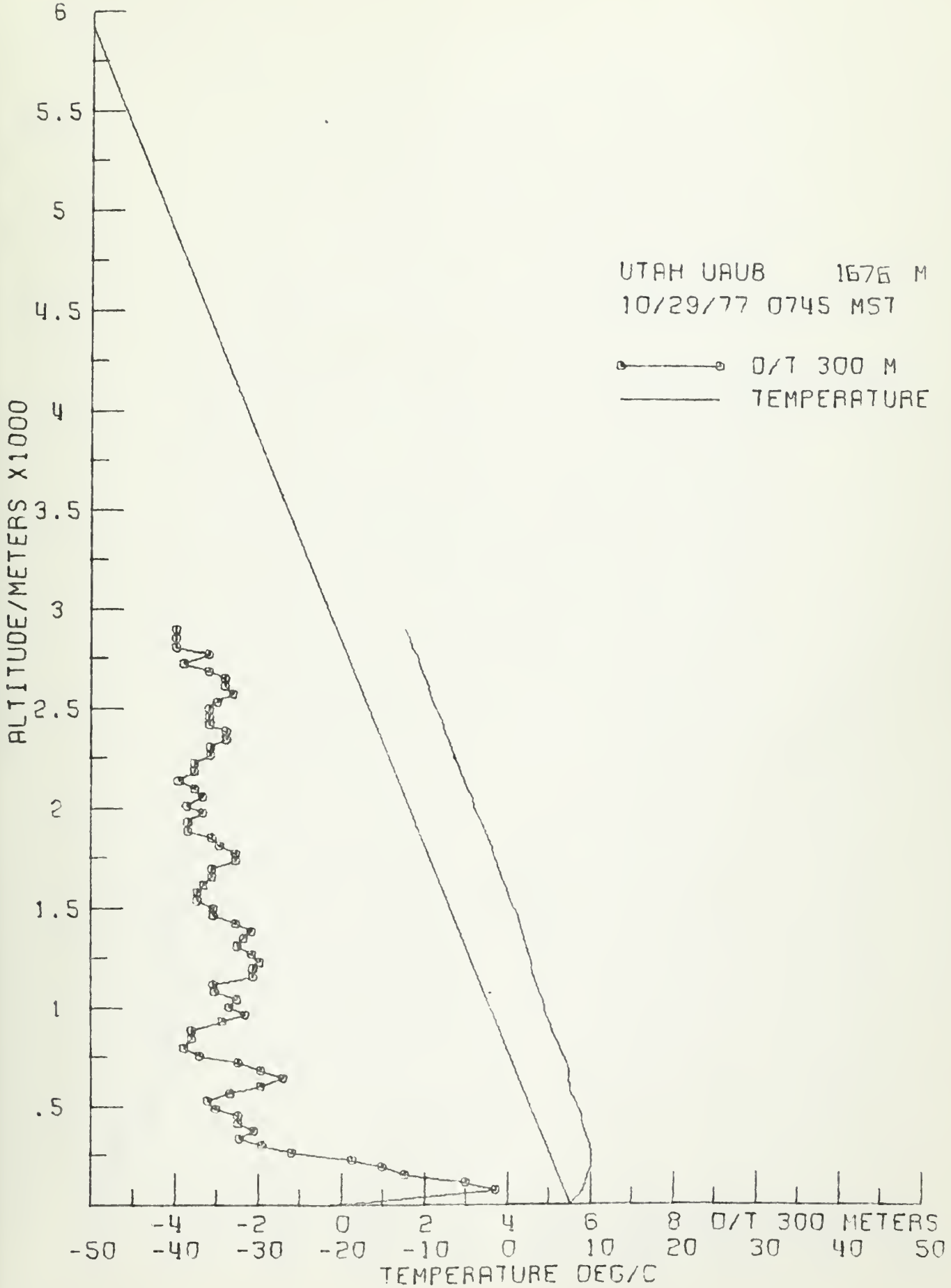
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/27/77 1507 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/29/77 0745 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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5.5
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4.5
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3.5
3
2.5
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1.5
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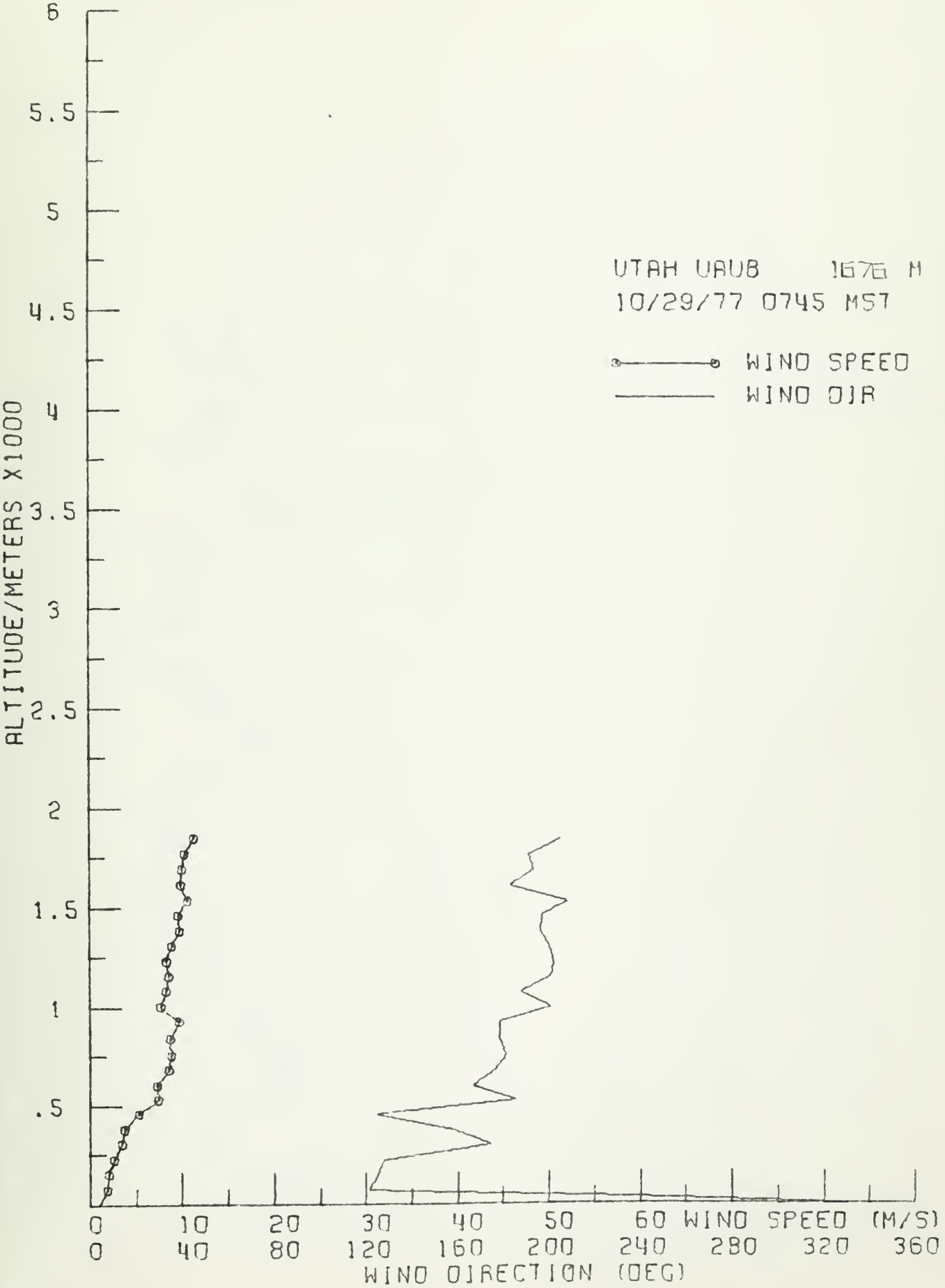
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 16?6 M
10/29/77 0745 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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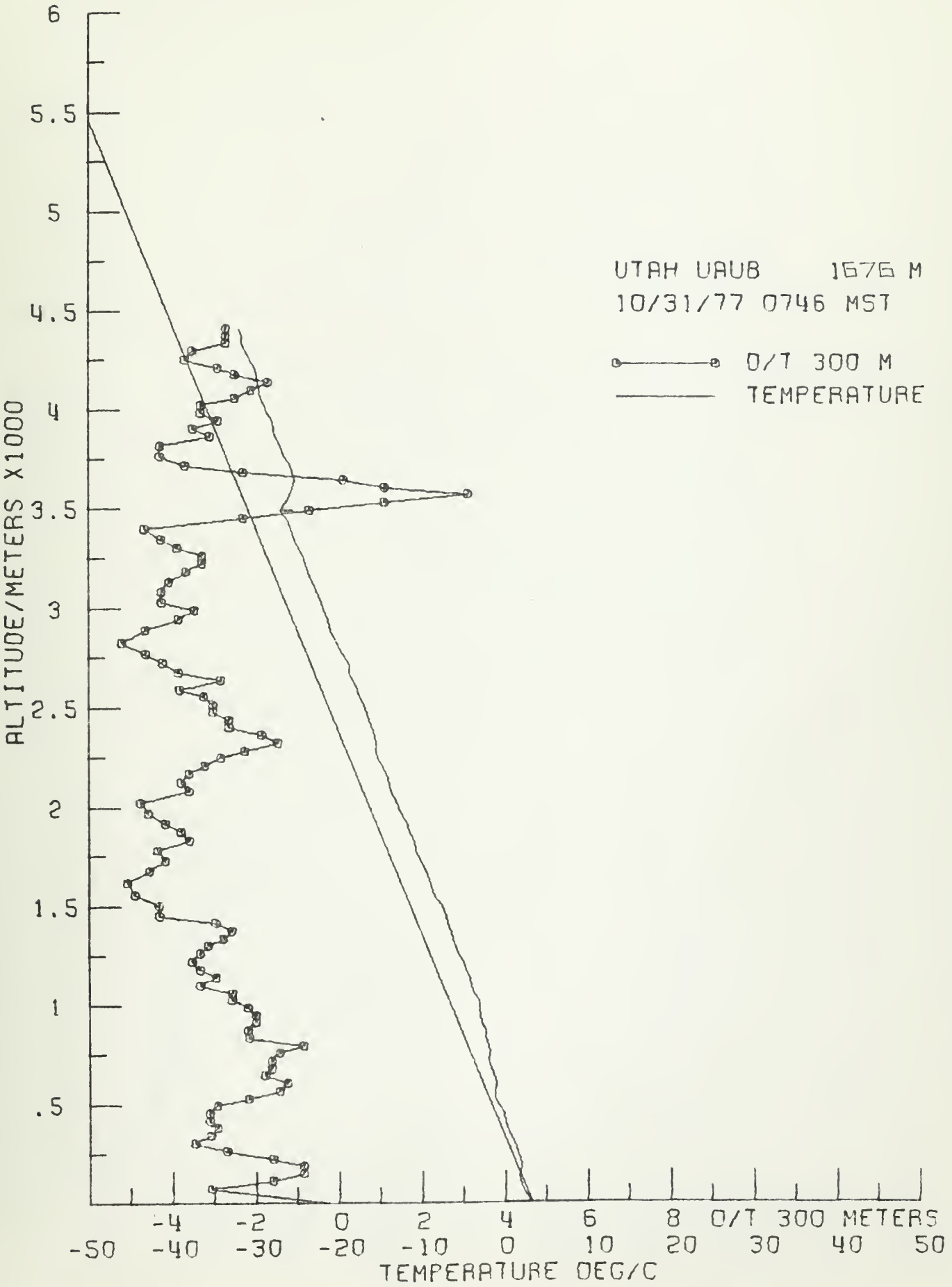
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/31/77 0746 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4.5
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3.5
3
2.5
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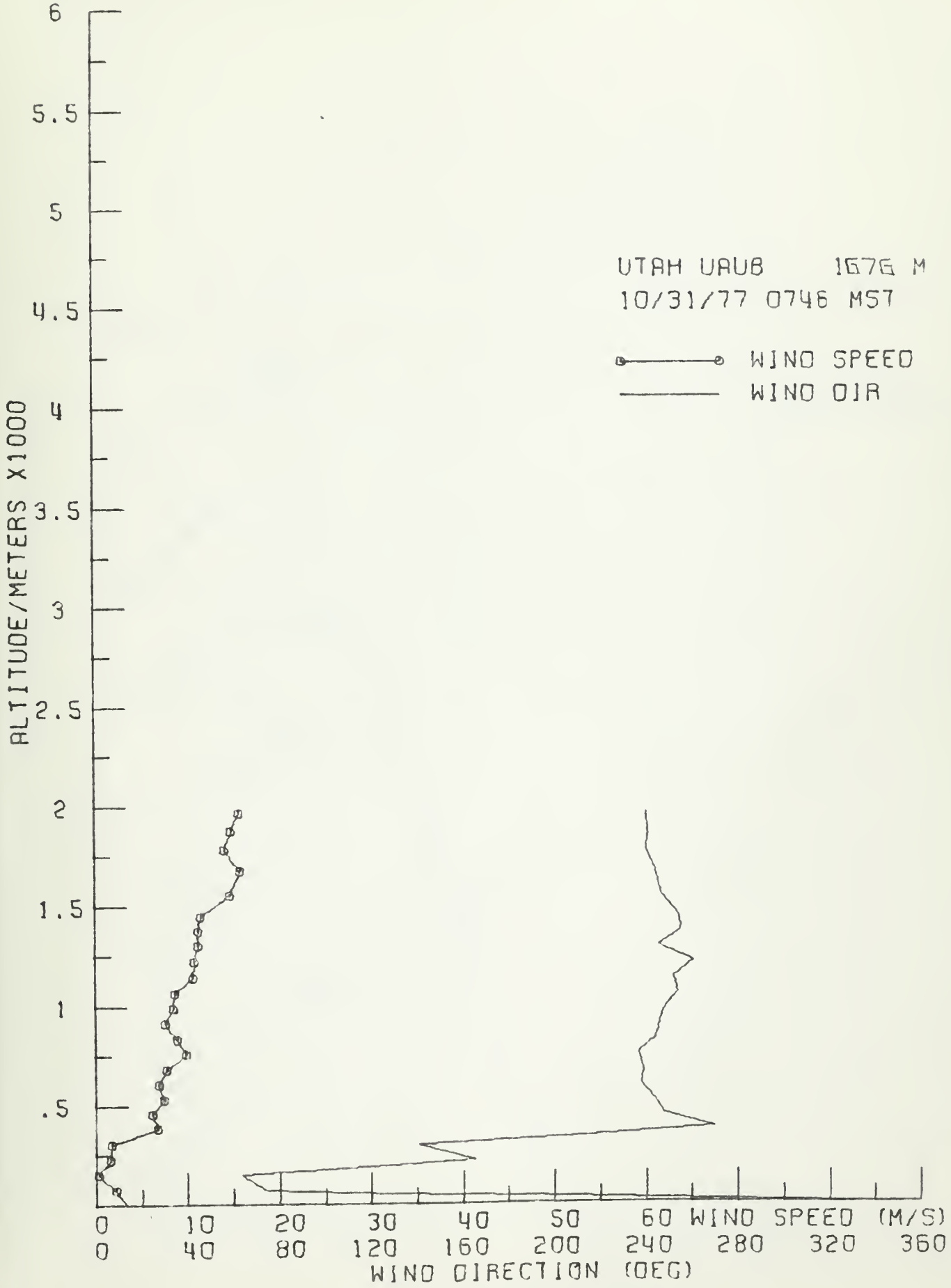
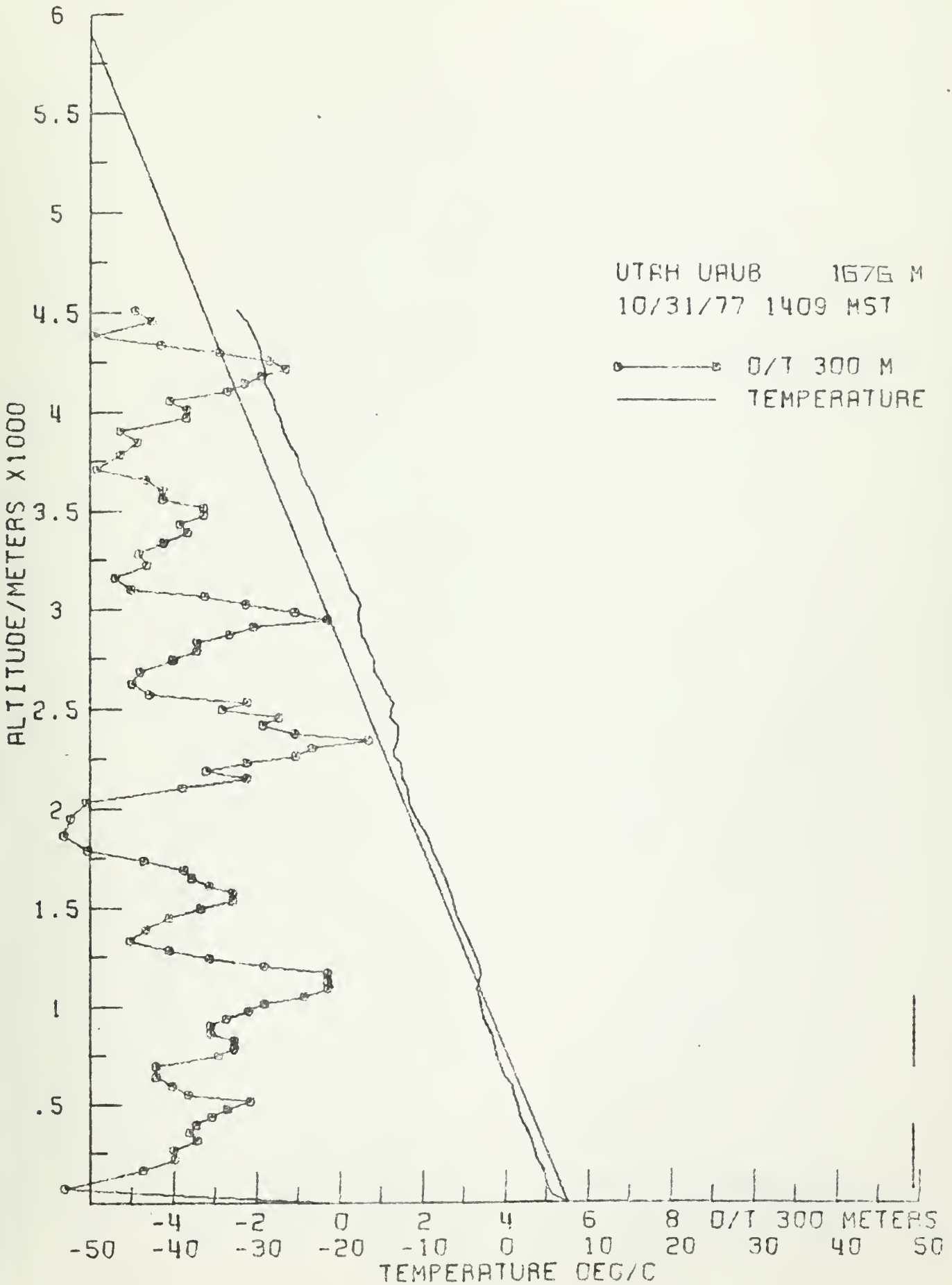
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1676 M
10/31/77 0746 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1676 M
10/31/77 1409 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
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1.5
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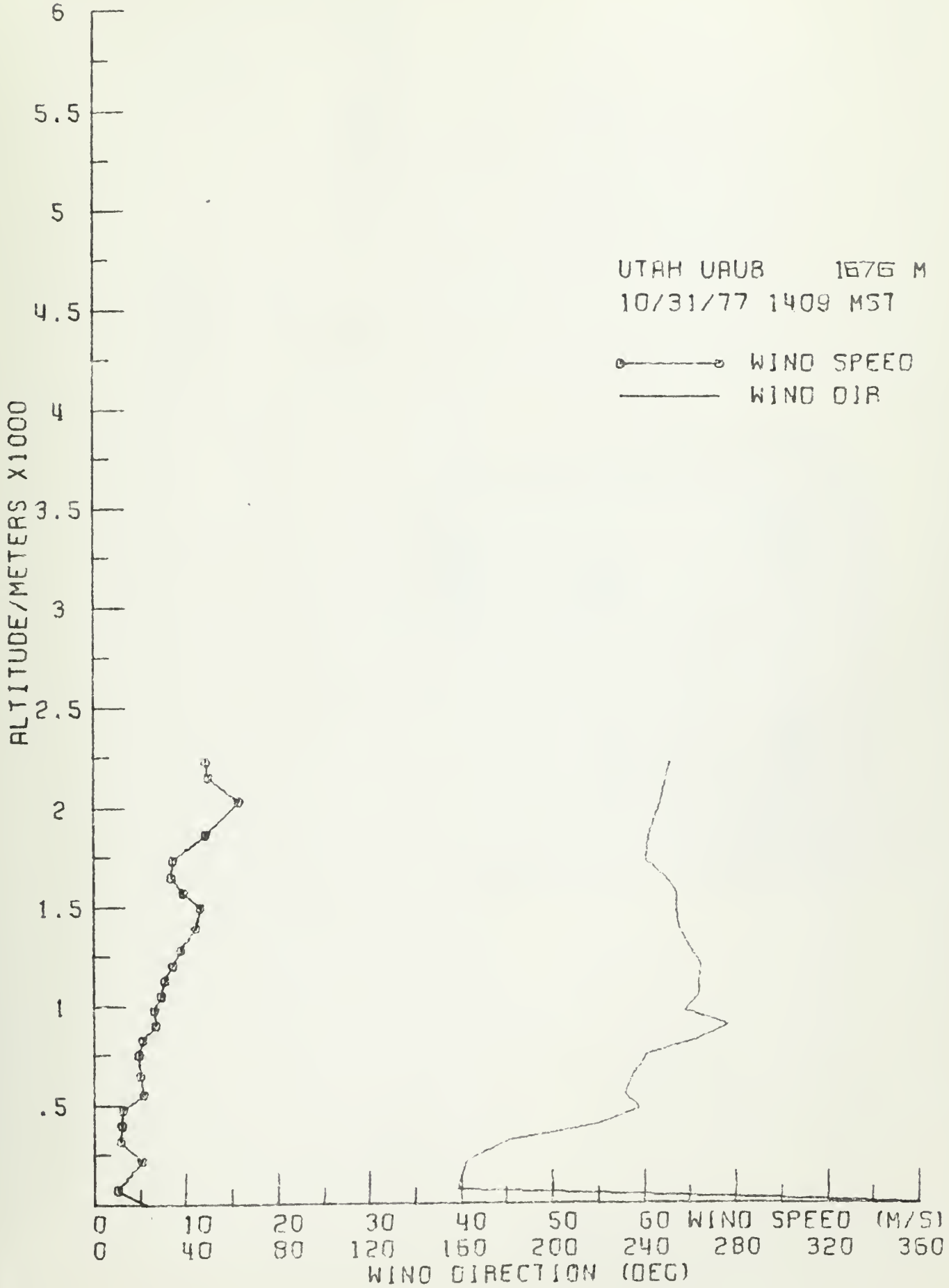
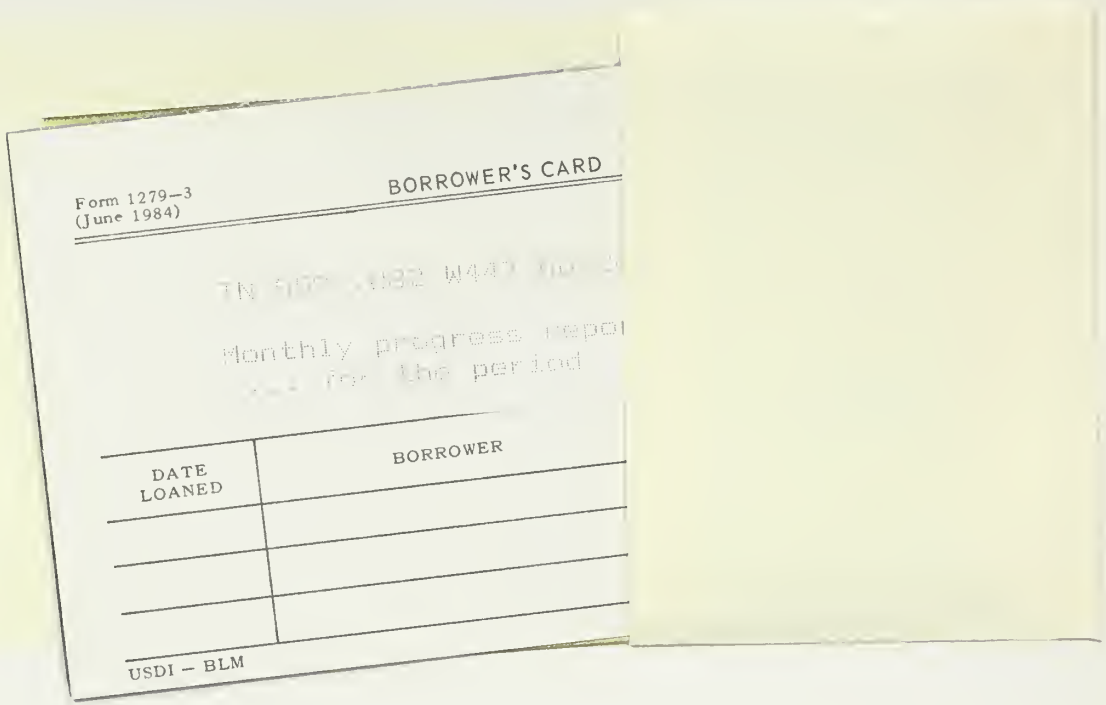
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAU8 1676 M
10/31/77 1409 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


Form 1279–3
(June 1984)
BORROWER'S CARD
TN 500 .A382 W447 no. 3
Monthly progress repor
... for the period
DATE LOANED
BORROWER
USDI – BLM